









THE
INVENTOR'S MANUAL
OF
LEGAL PRINCIPLES,
AND
GUIDE TO THE PATENT OFFICE.

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PREFACE.

THIS little work has been abridged from the author's larger Treatise on Patent Law, for the use of inventors. In the experience of ingenious men, engaged in prosecuting discoveries and inventions, there often occurs, in the first place, the interesting and important question, what constitutes a patentable invention? This is a question, upon which, in many, if not in most cases, no inventor will do well to trust entirely to his own judgment, even for the preliminary purpose of an application to the Patent Office. But it must be a great aid to any inventor, in presenting to counsel in the first instance the nature of his discovery or invention, to have some knowledge of the general principles of that system of law whose protection he wishes to invoke. Such a general knowledge may save him many useless experiments, and will enable him to present the case, on which he wishes advice, clearly and intelligibly, and perhaps save him from the consequences of an infringement on the rights of others. It will also enable him to know what diligence he must use, in a case where he supposes himself to be in danger of rivalry from the simultaneous efforts of other persons.

In regard, too, to the very important step of presenting to the Patent Office the claim on which he is to found his patent, every inventor, whether he undertakes to prepare his

own specification, or prepares it under professional advice, will find himself assisted by some knowledge of the rules on which the safe and correct structure of that instrument depends. Such knowledge will not — or, at least, should not in important cases — lead him to trust solely to his own judgment for the application of those rules; but it will be likely to guard him against the error of *proposing* to include in his claim things which ought to be rejected, and will enable him to present to his adviser the real subject-matter of his invention, with reference to which the claim is to be drawn.

Every person, also, who is interested, or proposes to become interested, in a *patent right*, needs to have at hand the means of ascertaining the modes and forms of transacting business at the Patent Office, and the Acts of Congress by which this whole subject is regulated: and these will be found in the following Manual. The great numbers of persons in the United States interested in these subjects, and the growing importance and extent of these interests, seemed to the author to render it desirable to present the general principles of the law in a condensed and accurate form, together with proper directions for making applications to the Patent Office, divested of the learning which can be useful only to members of the legal profession. The general diffusion of a correct knowledge of the leading principles of patent law, among practical inventors, may do something to promote their convenience, and the security of this species of property, which involves the interests of a very large class of persons throughout this country.

Boston, May 1, 1851.

PART I.

THE SUBJECT-MATTER OF PATENTS,

AND THE

PARTIES ENTITLED THERETO.

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CHAPTER I.

NOVELTY AND UTILITY.

§ 1. THE Patent Act now in force in this country requires that the subject of every patent should be "new and useful," whether it be an art, machine, manufacture, or composition of matter, or an improvement on any of these things.¹ The inquiry that meets every inventor on the threshold is, what constitutes novelty, and what constitutes utility, in the sense of the statute?

§ 2. It is one of the first principles of patent law, that a patent cannot be obtained for a mere philosophical or abstract theory, be the subject what it may: it can only be for theory reduced to practice. If, therefore, the subject of the patent be an art, it must be an art actually put in practice and unknown before;—if it be a machine, it must be substantially new in its structure and mode of operation, and not merely changed in form or in the proportion of its parts:—if it be a manufacture, or composition of matter, it must be something actually made and substantially different from anything the making of which was before known.

¹ Act of July 4, 1836, c. 357, § 6.

§ 3. In machinery, if a patent is claimed for a whole machine, it must in substance be a new machine; that is, it must be a new mode, method, or application of mechanism, to produce some new effect, or to produce an old effect in a new way. In cases of difficulty, where the machinery is complicated, and many of the elements employed are powers and instruments of motion long known, the test, which is to determine the boundaries between what was known and used before, and what is new, is, to observe what is new in the mode of operation. If the principles of a machine, that is, the peculiar device or manner of producing the given effect, be new, although the effect itself be old, a patent may be claimed for the machine.

§ 4. On the other hand, the mere purpose or effect of a machine, however novel, can furnish no ground for a valid patent, unless the machine itself, the instrument by which the purpose is effected, is substantially new. The application of what is old to a new purpose is not patentable.

§ 5. It is necessary, however, to consider somewhat in detail what amount of invention is essential to support a patent.

§ 6. It is often laid down, that, provided the invention is substantially new, it is of no consequence whether a great or small amount of thought, ingenuity, skill, labor, or experiment has been expended, or whether it was discovered by mere accident. Still it is sometimes necessary to ascertain what bearing the amount of thought, design, or ingenuity that may have been expended, has upon the question of novelty. It may not be necessary that there should be positive evidence of design, thought, or ingenuity; but if it is necessary that the possibility of these qualities having been exercised should not be excluded by the character of the supposed invention, then such possibility becomes one test of the sufficiency of invention. While the law does not

look to the mental process by which the invention has been reached, but to the result, it may still require that the result should be such as not to exclude the possibility of some skill or ingenuity having been exercised. It requires this, because it requires that the subject-matter of a patent should be something that has not substantially existed before. While such a thing may have been produced by mere accident, and not by design, yet it may also have been the fruit of design and study. If, however, the character of the alleged invention be such, that no design or study could by possibility have been exercised in its production, then its character is strong proof that it does not differ substantially from what had been produced before. We must look, therefore, to the character and purposes of the invention, and not to the actual process by which it was produced, in order to see that the possibility of thought, design, ingenuity, or labor having been exercised, is not excluded.

§ 7. Thus, if an alleged invention is absolutely frivolous and foolish, though it may have the element of novelty, in one sense, it is not the subject of a patent. So, too, mere colorable variations, or slight and unimportant changes, will not support a patent; as the immersion of cloth in a steam bath, with the view of damping it, instead of immersing it in hot water; and the substitution of steam as the means of heating hollow rollers over which wool was to be passed, instead of heating them by the insertion of hot iron bars. In such cases, if the consequences resulting from the change are unimportant, and the change consists merely in the employment of an obvious substitute, the discovery and application of which could not have involved the exercise of the inventive faculty, in any considerable degree, then the change is treated as merely a colorable variation, or a double use, and not as a substantive invention.

§ 8. On the other hand, the utility of the change, and the consequences resulting therefrom, may be such, as to

show that the inventive faculty may have been at work; and in such cases, though, in point of fact, the change was the result of accident, its utility and importance will afford the requisite test of the amount of invention involved in the change. Thus the mere substitution of one metal for another, in a particular manufacture, might be the subject of a patent, if the new article were better, more useful, or cheaper than the old. In Crane's patent, the invention consisted in the use of anthracite and hot air-blast, in the manufacture of iron, in the place of bituminous coal and hot air-blast; and it was held that if the result produced by such a combination be either a new article, or a better article, or a cheaper article, to the public, than that produced before by the old method, that such a combination is an invention or manufacture intended by the statute, and may well become the subject of a patent. But if the change be immaterial and productive of no beneficial result, so that the end can be attained as well without as with the supposed improvement, it will not support a patent.

§ 9. There are many cases where the materiality and novelty of the change can be judged of only by the effect on the result; and this effect is tested by the actual improvement in the process of producing the article, or in the article itself, introduced by the alleged invention. To these cases this test is directly applicable. Thus, in Lord Dudley's patent, the change consisted in the substitution of pit coal for charcoal in the manufacture of iron, and it was new both in the process of manufacture and in the constitution of the iron. In Neilson's patent, the change consisted in blowing the furnace with hot air instead of cold; and in Crane's, the substitution of anthracite as fuel, in combination with the hot blast. Both these processes were great improvements, leading to a cheaper production of iron of as good or a better quality. In Derosne's patent the invention was by the application of charcoal in the filtering of sugar,

being a change in the process of manufacture, so as to produce sugar in a way unknown before. In Hall's case, the use of the flame of gas, to singe off the superfluous fibres of lace, effected completely what had been done before in an imperfect manner.

§ 10. In these cases the subject of each invention was not the particular machinery or apparatus by which the new application was to be made available, but it was the new application itself of certain known substances or agents, to produce a particular result, differing, either in the process or in the article produced, from the former methods of producing the same thing, and thereby producing a better article, or producing it by superior and cheaper processes. It is obvious that the result, in such cases, furnishes a complete test of the sufficiency of invention; because the importance of the result shows that whether actually exercised or not, the possibility of the exercise of thought, design, ingenuity, and skill is not excluded. The merit is the same, whether the invention was the fruit of accident or design; because the merit consists in having realized the idea and carried it out in practice. But if the idea and the practice involve no beneficial results, superior to what had been before attained, there could have been no scope for the exercise of the inventive faculty, because the result excludes the supposition of its having been exercised.

§ 11. The same test is also indirectly applicable to another class of cases, where a particular instrument or machine, or combination of machinery, is the subject of the patent. As in Arkwright's case, the gist of the objection was, that the alleged new machinery did not serve the purpose of spinning cotton better than the machinery formerly used. And wherever this objection lies to a particular machine or instrument, there cannot be said to be a sufficiency of invention to support a patent. In the case of Brunton's patent,

which covered two inventions, the one was for an improvement in the construction of chain cables, and the other for an improvement in the construction of anchors. As to the first invention, chain cables had been formerly made with twisted links, a wrought-iron stay being fixed across the middle of the opening of each link to keep it from collapsing. The alleged improvement consisted in making the links with straight sides and circular ends, and in substituting a cast-iron stay with broad ends, adapted to the sides of the link, and embracing them. This combination of the link and the stay was calculated to sustain pressure better than the old form. The substitution of a broad-headed stay in the link, in place of a pointed stay, under the circumstances, was a sufficient invention to support a patent, on account of the utility of the substitution, in connection with the principles to be carried out, viz., the resistance of pressure according to the action of forces.

§ 12. In respect of the anchor, the invention consisted in making the two flukes in one, with such a thickness of metal in the middle that a hole might be pierced through it for the insertion of the shank, instead of joining the two flukes in two distinct pieces by welding to the shank. The hole was made conical or bell-mouthed, so that no strain could separate the flukes from the shank, by which means the injury to the iron, from repeated heating, was avoided, only one heating being necessary to unite the end of the shank perfectly with the side of the conical hole. But it appeared at the trial, that the improvement in the anchor was the avoiding the welding, by means well-known and practised in cases extremely similar. It was a case of the simple application of a mode known and practised for a similar purpose in other like cases; and it did not appear that anchors so made were superior to those which had been made before. The patent, therefore, in respect of the anchor, could not be sustained.

§ 13. In like manner, where the substance of an invention consisted in spinning with a much less distance between the retaining and drawing rollers, than had been before practised, the spinning at a particular distance did not constitute a new manufacture, it having been the previous practice to spin at variable distances.

§ 14. It appears, then, that the amount of invention may be estimated from the result, although not capable of being directly estimated on a view of the invention itself.

§ 15. The utility of the change is the test to be applied for this purpose. As there cannot be a decidedly useful new result, without some degree of invention in producing the change which effects that result, when a real utility is seen to exist, a sufficiency of invention may be presumed. And whenever utility is proved to exist in a very great degree, a sufficiency of invention to support a patent may be presumed.

§ 16. These principles may now be applied to the statute. It requires that the subject of a patent should be "new and useful." The word "useful" is used for the purpose of establishing general utility as the test of a sufficiency of invention to support a patent. It had been held, upon the use of the same word in the same connection in the old patent act of 1793, that it was used merely in contradistinction to what is frivolous or mischievous to society. This term was held to be satisfied, if the alleged invention was capable of use, and was not injurious to the well-being, good policy, or sound morals of society.

§ 17. But the subject of a patent must not only be "useful," in this sense, that is, capable of use and not mischievous, but it must also be a "new" art, machine, manufacture, or composition of matter, or "a new improvement" upon

one of these things, "discovered or invented" by the patentee, and "not known or used by others" before. It is obvious, therefore, that the subject-matter of a patent must be something substantially different from anything that has been known or used before; and this substantial difference, in all cases where analogous or similar things have been previously known or used, must be the measure of a sufficiency of invention to support a patent.

§ 18. In determining whether alleged inventions of various kinds possess the necessary element of novelty, the character of the result, and not the apparent amount of skill, ingenuity or thought exercised, is to be examined; and if the result is substantially different from what had been effected before, the invention is entitled to a patent; otherwise it is not.

§ 19. Thus, where there was a patent for an improvement in *copperplate* printing of bank notes, by printing copperplate on both sides of the note, or copperplate on one side, and letter-press on the other, or letter-press on both sides, *as an additional security against counterfeiting*; and other parties had used steel plate printing; the question was, whether "copperplate printing" included "steel plate printing." It was contended, that even if copperplate did not include steel plate printing, still the use of the latter, applied to bank notes, to produce the effect stated in the patent, was a mere invasion and virtually an infringement. But it was held that if the use of steel plates was an *improvement* upon printing from copperplates, for which a patent might have been obtained by the inventor, the use of steel plates could with no propriety be considered as an infringement of the patent, unless it appeared that the patentee's improvement had also been used.

§ 20. In other words, if the process of printing by steel

plates was an improvement in the manufacture of notes, upon the process of printing by copperplates, so as to be a benefit to the trade of manufacturing notes, it would have been a substantive invention, and therefore not an infringement upon the plaintiff's patent, if standing alone.

§ 21. But where there was a patent for an alleged invention in folding and putting up thread and floss cotton, in a manner different from the ordinary mode, so that it would sell quicker and for a higher price than the same cotton put up in the common way; the article itself was imported, and underwent no change. The whole of the improvement consisted in putting up the skeins or hanks in a convenient quantity for retailing, with a sealed wrapper, and a label containing the number and description of the article. The invention, upon the patentee's own showing, was frivolous; it was in no way beneficial to the public, not making the article itself any better, or altering its quality in any way. In other words, it was no "improvement of the trade" of making the article sold, but it was a mere improvement in the art of selling it, by which the retailer could get a higher price for the same article than could be obtained by putting it up without the label.

§ 22. So, too, where the question was whether, in a patent for a machine for making wool cards, the patentee had not claimed what had been substantially done before, his claim being for the whole machine, which comprehended several distinct operations or stages in the manufacture; the question was, whether either of these effects had been produced in the machines formerly in use by a combination of machinery or mode of operation substantially the same as in the machine of the patentee. It would not be sufficient to protect the plaintiff's patent—it being for the whole machine—that his specific machine, with all its various combinations and effects, did not exist before; be-

cause, if the different effects embraced in it were all produced by the same application of machinery, in separate parts, and he merely combined them, or added a new effect, such combination would not sustain his patent for the whole machine; that is to say, without looking at the apparent amount of skill or invention involved in bringing these several modes of operation into one machine, which was not the invention claimed, if the result accomplished thereby did not differ substantially, in respect to the processes embraced in it, from what had been done before in separate machines, the subject-matter claimed as the invention was not new.

§ 23. On the other hand, where a patent claimed, as the invention of the party, a new and useful improvement in the making of friction matches, by means of a new compound, and it was said that the ingredients had been used before in the making of matches, the true question was, whether the materials had been used before in the same combination, and if not, the combination was patentable, however apparently simple it might be. That is to say, if the result at which the inventor had arrived, the production of a friction match by a particular combination of materials, was new, there was a sufficiency of invention, without looking at the apparent facility or difficulty of accomplishing it.

§ 24. But where an invention was claimed to be a mode by which the back of a rocking-chair could be reclined and fixed at any angle required, by means of a certain apparatus, the patent was declared void, because the same apparatus or machinery had been long in use, and applied, if not to chairs, at least in other machines, to purposes of a similar nature. An examination of the result attained by the plaintiff showed that he had accomplished nothing which had not been done before, but had merely applied an old contrivance to a new purpose.

§ 25. This last case furnishes a clear line of demarkation between invention and a mere application to a new use. It shows that the end, effect or result attained must be new; and that if the same end, effect or result has been attained before, it is not new, and there has been no invention, but merely an application of means before known to produce an effect before known, on a new occasion. The purpose itself, which is to be accomplished, is not patentable; but the adaptation of materials to the execution of the purpose, or the apparatus by which the purpose is accomplished, is the true subject of the patent; and if the same purpose has in other instances been accomplished by the same means, the use of those means on a new occasion does not constitute a sufficiency of invention. In other words, the machinery, apparatus, or other means, is not new.

§ 26. The doctrine in relation to utility, being, in this country, that the subject-matter of a patent must not be injurious or mischievous to society, or frivolous or insignificant; it follows that every invention, for which a patent is claimed, must be, to a certain extent, beneficial to the community; it must be capable of use, for some beneficial purpose; but when this is the case, the degree of utility, whether larger or smaller, is not a subject for consideration, in determining whether the invention will support a patent. But it is obvious that the capability of use for some beneficial purpose is a material element, in determining whether there is a sufficiency of invention to support a patent; the force of the word "useful," introduced into the statute in connection with the epithet "new," being to determine whether the subject-matter, upon the whole, is capable of use, for a purpose from which any advantage can be derived to the public. General rules will not decide this question in particular cases, but the circumstances of each case must be carefully examined, under the light of the principles on which general rules are founded.

§ 27. In connection with the subject of novelty, it is further to be remembered, that the statute also requires that the subject-matter of a patent should not have been "known or used by others before the discovery or invention thereof" by the patentee.

§ 28. The time of the knowledge or use of an invention by others which is to vitiate a patent, is a very important point. In England, such knowledge, obtained at any time and in any mode, before the application for a patent, is sufficient to invalidate it. But in this country, it was settled as the true construction of the act of 1793, which used the words, "not known or used before the application," that these words, taken in connection with other provisions of the statute, meant that the invention should not have been known or used before the discovery by the patentee. This construction was afterwards adopted by Congress in the act of 1836, in so many terms.

§ 29. The word "others," though used in the plural in this statute, was used to denote that the use should be by some other person or persons than the patentee; and therefore the prior use by one person other than the patentee is sufficient to show that the patentee was not the first inventor.

§ 30. The expression "first inventor," as used in our statute, means that the patentee must have been the inventor first in point of time before all others. The English law is somewhat different from ours, on this point, for although it is requisite in England that the patentee should be the first inventor, yet the courts have so construed the expression, as to admit of a valid patent in a variety of cases, where the patentee was not absolutely the first person to make or discover the thing; as where it had been made previously, by another person who had concealed it from

every one else ; and generally, in England, the question whether the patentee is the true and first inventor or not, depends on whether he borrowed the invention from a source open to the public. But in this country, these distinctions are rejected ; and it is held, under our statutes, that the patentee must have been the first inventor, as against all other persons, whether they have made known their inventions or not. The previous knowledge and actual application of the thing by any one person, however privately, is sufficient to defeat the patent.

§ 31. We have already seen that there are two issues with respect to novelty ; one, whether the patentee is the first inventor ; the other, whether the invention, at the time of his application, be new as to public use and exercise. These issues may be involved together, because, if the last is negatived, it may be negatived by evidence which shows that the patentee was not the first inventor. But in point of law and fact, these are distinct issues. The patentee may have been the first inventor, and yet he may have allowed the invention to get into public use and exercise, before his application ; or the invention may never have been in public use, and yet the patentee may not be the first inventor, by reason of his having learned it from some one else, or from some published work, or from some other source open to the public.

§ 32. It is an important question of construction, therefore, to determine when a claimant is the first inventor, in the sense of the statute. This depends upon the nature and extent of the knowledge which any other person may have had of the subject of the patent.

§ 33. It is not sufficient to defeat a patent, already issued, that another person has conceived the possibility of effecting what the patentee has actually accomplished. To consti-

tute a prior invention, the party alleged to have made it must have proceeded so far as to have entitled himself to a patent, in case he had made an application; or, in other words, he must have reduced his idea to practice, and embodied it in some distinct form. It is true, that in a race of diligence between two independent inventors, our law provides for the priority of conception, by allowing the one who first invents to obtain the patent, if he was using reasonable diligence in adapting and perfecting his invention, although a second inventor has, in fact, first perfected the invention, and reduced it to practice. But where a patent has been granted to a patentee, who did not surreptitiously obtain his knowledge from a prior inventor, who was using reasonable diligence to perfect and adapt the invention, in order to defeat it on the ground that the patentee was not the first inventor, some previous inventor must not only have had the idea, but must also have carried the idea into practical operation; for he is entitled to a patent, who, being an original inventor, has first perfected and adapted the invention to actual use.

§ 34. But when may a prior invention be said to have been perfected and adapted to actual use? Does the law furnish any test by which this question can be answered? In the first place, it is clear, that mere trials and experiments, though continued up to the date of a patent, will not vitiate the grant, if the patentee had no knowledge of those trials and experiments; because the first perfected invention, if original, is entitled to the patent. In the second place, there may often be a very satisfactory test, which will determine whether the proceedings of an alleged prior inventor were anything more than trials and experiments, by ascertaining whether he at any time, before the date of the patent, abandoned the pursuit of the object at which he was aiming. If he did so, the abandonment has been said to furnish a presumption that his proceedings rested in experiment and trial alone.

§ 35. But if, on the contrary, his experiments and trials were continued, or if there is not satisfactory evidence of an abandonment of the object, then it becomes a question of fact, depending on the nature of the proposed invention, the character of the experiments and the results attained, to determine whether the party had really accomplished the same substantial result as that described in the patent.

§ 36. But although the subject of every patent must have been "invented or discovered" by the party claiming to be the inventor or discoverer, still, as suggestions and hints may often have been made use of by a man of the most original genius, in the production of inventions, it becomes necessary to inquire who is to be regarded as the inventor or discoverer, in the sense of being entitled to a patent for the thing invented or discovered.

§ 37. The intellectual production, or that which, when perfected, constitutes the thing invented, differing from all other things by some substantial peculiarity which gives it a distinct character, is what the law means to protect with an exclusive privilege. It is clear, therefore, that many suggestions may have been made, or many hints taken from others, without invalidating the claim of a party to be considered as the author of the invention: since it is not the abstract suggestion or inchoate idea, which the law intends to treat as the subject of the patent, but the perfected invention, in which the idea is applied to a practical purpose and made capable of useful operation. There may be a long interval between the first suggestion of an idea, which leads to or forms the germ of a discovery, and the actual production of that discovery, in all its peculiarities, constituting in its perfect state the thing invented. This interval must, in many cases, be occupied by the exercise of inventive power, of the highest description, on the part of him who has taken the first suggestion from another, by bringing it to

perfection, or developing and reducing it to practical application ; and the extent to which this interval is so occupied will determine whether the person originally suggesting, or the person subsequently applying an idea, is entitled to be regarded as the inventor.

§ 38. Thus it has been held that in order to invalidate a patent, on the ground that the patentee received from another person the suggestion of the invention, it is not enough to show that the naked idea, or bare possibility of accomplishing the object, was suggested. On the other hand, it is not necessary that the minutiae of the invention should have been communicated by another person. But it must appear that the invention was substantially communicated to the patentee, so that without more inventive power he could have applied it in practice. So, too, it has been held, that although others may have previously had the idea of a machine and made some experiments towards putting it in practice, the person who first brought the machine to perfection, and made it capable of useful operation, is the inventor, and is entitled to the patent.

§ 39. The extent to which a person may avail himself of the suggestions, or inventive faculties, or manual dexterity of a servant, and afterwards claim to be the inventor, does not perhaps admit of being stated in any precise general proposition. It depends upon the relative situations of the parties, the nature of the employment, and the fact of the employer having planned or conceived the main idea of the invention. The person who suggests the principle of an invention is the inventor ; and if this be the servant, the employer cannot claim the invention as the author of it, although he may have taken the servant into his employ for the express purpose. But if the employer conceives the result embraced in the invention, or the general idea of a machine upon a particular principle, and, in order to carry

his conception into effect, it is necessary to employ manual dexterity, or even inventive skill, in the mechanical details and arrangements requisite for carrying out the original conception, in such cases the employer will be the inventor, and the servant will be a mere instrument, through which he realizes his idea. The adoption by an inventor, of a suggestion made in the course of experiments, of something calculated more easily to carry his conceptions into effect, does not effect the validity of the patent.

§ 40. There may be a class of cases, where the patentee, having employed and paid for the inventive faculty of another, may claim and hold a patent for the invention, not as the inventor, but as the assignee of the inventor. But this class of cases belongs to the subject of assignments of patents, and is distinguishable from the general principles which determine who is the actual inventor.

§ 41. With regard to the use of the antecedent experiments of others, the rule of law is, that experiment not brought to completion, or conducted to a full result, will not vitiate the patent of a more successful person in the same line, though he avails himself of the knowledge gained by the experiments of his predecessors.

§ 42. The Statute of 1836 also requires that the subject of the patent should not have been, at the time of the application, in public use or on sale, with the consent or allowance of the patentee, as the inventor or discoverer.

§ 43. The phrase "public use" means use in public, and not use by the public; so that, under this act, if there had been a use in public by any person, with the consent or allowance of the patentee, the patent will be defeated.

§ 44. But then it is necessary that the machine or other subject of invention should have been completed, and should

have been used in public substantially as it was patented, with the consent of the patentee.

§ 45. As the law stood, therefore, prior to the year 1839, an invention might be allowed to be in public use, by the patentee, before his application, in two modes. He might allow of its use in public by an individual, or individuals, or he might allow the whole public to use it, by having abandoned, or dedicated his invention to the public, before his application. In either case, his patent would have been void.

§ 46. With regard to the first mode, where the use had been permitted to an individual, it has been held that such use must have been unlimited in time, extent, or object. If allowed for a short, or definite period, as an act of kindness, or as a means of continuing experiments and testing the utility of the invention, it would not have the effect of defeating the patent under the act of 1836.

§ 47. With regard to the second mode, a dedication or abandonment of the invention to the public, before the application for a patent, it has been said that the circumstances ought to be very clear and cogent, before the court would be justified in adopting a conclusion so subversive of private rights, when the party has subsequently taken out a patent. Still, although the inventor's acts are to be construed liberally, unequivocal evidence that he has dedicated his invention to the public will deprive him of his right.

§ 48. Prior to the year 1839, therefore, if the patentee allowed not merely the public use, but even a free individual use, of his invention, before he applied for a patent, his patent would be invalid. But by the act of 1839, ch. 88, § 7, this inconvenience was remedied by the enactment, "that every person or corporation who has, or shall have, purchased or constructed any newly invented machine, manufacture or

composition of matter, prior to the application by the inventor or discoverer for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture or composition of matter, so made or purchased, without liability therefor to the inventor, or any other person interested in such invention; and no patent shall be held to be invalid by reason of such purchase, sale or use, prior to the application for a patent aforesaid, except on proof of abandonment of such invention to the public; or that such purchase, sale or prior use, has been for more than two years prior to such application for a patent."

§ 49. This enactment relieved the patentee from the effect of the former laws, and the construction that had been put upon them by the courts, and put the person, who, by the consent and allowance of the inventor, had had a prior use of the invention, on the same footing, as if he had a special license from the inventor to use his invention; and, at the same time, the patent is valid, after it is issued, against all persons, except such licensee, who will continue to have the right to use the invention. Inventors may now, therefore, permit the use of their inventions, by individuals, for a period of two years, prior to the application for a patent, and still obtain a valid patent, notwithstanding such use. But if the use thus allowed extends over a period of more than two years prior to the application, or if it amounts to an abandonment of an invention to the public, whether for a longer or a shorter period, the patent will be invalid.

§ 50. But to entitle a person to claim the benefit of this statute, he must be a person who is a purchaser, or who has used the patented invention before the patent was issued, by a license or grant, or by the consent of the inventor, and not be a purchaser under a mere wrong-doer. What will amount to such a license, grant or consent, is well shown in a case where a person employed in the manufactory of

another, while receiving wages, made experiments at the expense and in the manufactory of his employer, had his wages increased in consequence of the useful result of the experiment, made the article invented, and permitted his employer to use it, no compensation for its use being paid or demanded, and then obtained a patent; it was held, that such an unmolested and notorious use of the invention, prior to the application for a patent, brought the case within the provisions of the statute.

§ 51. But the further consideration of the subjects of license and abandonment belongs to another part of this treatise.

§ 52. The novelty required by our law relates not merely to previous inventions made in this country, but to inventions made anywhere in the world. The invention must be absolutely and not relatively new. It must not have been known or used anywhere, and not described in any public work.

§ 53. But there is an important proviso, introduced into the statute, which declares that whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be held to be void on account of the invention or discovery, or any part thereof, having been before known or used in any foreign country, it not appearing that the same, or any substantial part thereof, had before been patented or described in any printed publication. So that, as the law now stands, an inventor who does not borrow from a foreign discovery, that is, who believes himself to be the first inventor or discoverer of the thing patented, can only be deprived of the benefit of his patent, by showing that the thing had been before patented, or described in some printed publication. It will not be enough to show that the thing

had been known or used in a foreign country, if it had not been patented, or described in a printed publication.

§ 54. Thus, while the recent statute still continues the presumption that the patentee has seen the prior description contained in a printed publication, and makes that presumption conclusive, it relieves an original inventor from the same presumption, arising out of the mere previous knowledge or use of the thing in a foreign country where it had not been patented or described ; and if he can take the oath that he discovered or invented the thing, he will not be debarred of his patent, by a prior invention or discovery and secret use of the thing in a foreign country.

§ 55. It remains to be stated, that the consideration upon which a patent is granted, is the novelty of every material thing, process, or part of the invention, included in the subject-matter, that is represented as a substantial and material part thereof ; that this consideration is an entirety, and, consequently, that if any part of it fails, the patent is invalid. This consequence results from the general principles of law which govern grants by the public, and these principles are recognized by the statute, which establishes as one of the defences to an action on a patent, "that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new."

§ 56. So, also, in respect of utility, if a patent contains more than is necessary to produce the described effect, and the addition was made for the purpose of deceiving the public, it will be invalid ; and if the whole patent fails to produce the described effect, no action can be maintained upon it.

CHAPTER II.

THE SUBJECT OF INVENTION OR DISCOVERY.

§ 57. THE Act of Congress of July 4, 1836, ch. 357, § 6, declares the subject of letters-patent to be "any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter." In the preceding chapter, we have considered the qualifications of novelty and utility, with reference to all these subjects; and we have now to treat of the several subjects themselves.

§ 58. The cardinal principle, which lies at the foundation of the patent law, in this and most other countries, is, that whatever be the character of the subject-matter, or the way in which it is described, the result must be an effect produced in manufacture, as distinguished from elementary matter. The subject-matter of a patent may be either a thing produced or the mode of producing a thing; but it must be the one or the other, and can never be a new discovery of an elementary principle, without practical application to the production of some particular effect in matter. This fundamental rule is deducible not only from the meaning of the term "manufacture," which cannot be made to mean anything that does not result in manufactured matter in some way—but also from the general scope and spirit of the patent law, which was not designed to create monopolies in abstract principles or theoretical discoveries, but to promote the arts and manufactures of the country.

§ 59. According to the construction of the courts, the word *manufacture* is used in the statute in a literal and a

figurative sense. It is used in a literal sense, because it clearly includes any species of new manufactured article, or tangible product of industry; or a new machine, the construction or production of which, as an arrangement of matter, is the result at which the inventor aims. But when it is extended to include the mode of producing an old or well known substance, or an old and well known effect upon matter, by a new method or process, it seems to be used in a sort of figurative sense; because, in such cases, it is the method or process of producing the thing or the effect that is new, and is the real subject of the invention, and the manufacture, or the result attained in matter, is then made to stand in the place of the new method or process of attaining it.

§ 60. Thus, "manufacture" has been defined to be "something made by the hand of man;" and it has also been held to include the practice of making a thing, or of producing a result: as in Watt's patent for "a method of lessening the consumption of steam and fuel in fire engines," which was held, after great consideration, to be a good subject-matter. The distinction to which this case gave rise, and which greatly extended the meaning of the term "manufacture," is this: that although a principle, or a rule in mechanics, or an elementary truth in physics, cannot be the subject of a patent, yet a new principle, rule, or truth, developed, carried out and embodied in the mode of using it, may be the subject of a patent. A mere principle is an abstract discovery, incapable of answering the term "manufacture;" but a principle so far embodied and connected with corporeal substances, as to be in a condition to act and to produce effects in any art, trade, mystery or manual occupation, becomes the practical manner of doing a particular thing. It is no longer a principle, but a process. Mr. Watt's invention was the discovery of a practical means of lessening the consumption of steam, by protecting the cylinder from the external air, and keeping it at a temperature not below that of steam

itself. He thus brought a principle into practical application, by the invention of a process.

§ 61. In like manner, a patent for the application of the flame of gas, instead of the flame of oil, to remove the superfluous fibres of lace, was sustained. So, too, where the invention consisted in the use and application of lime and mine-rubbish in the smelting of iron, it was held that there might be a patent for a new combination of materials previously in use for the same purpose, or for a new method of applying such materials. But this distinction has been made still more prominent by two recent cases. In one, the patent was for the application of anthracite combined with hot air blast in the smelting or manufacture of iron from iron stone, mine or ore; and the patent was sustained. In the other, the invention was of a mode of welding iron tubes, without the use of a maundril, or any internal support; and this patent was also sustained.

§ 62. These cases show that the term manufacture has been extended to include every object upon which art or skill can be exercised, so as to afford products fabricated by the hand of man, or by the labor which he directs. In this sense it includes a process: so that a patent may, it is said, be taken for a process, method, or practical application of a principle, that will cover every means or apparatus by which that process or method can be carried on, or by which that principle can be applied, provided the patentee has not only discovered the principle, but has also invented some mode of carrying it into effect.

§ 63. But it is necessary here to consider the broad question, what constitutes a patentable subject, before we attend to the classification of patentable subjects adopted by our statute.

§ 64. It is constantly to be borne in mind, in considering what may be the subject of a valid patent, that it cannot be a mere elementary principle, or intellectual discovery; but if a principle constitutes an important part of the discovery, it must be a principle put in practice and applied to some art. A science, therefore, or an elementary principle or discovery in science, cannot be the subject of a patent. So, too, there cannot be a patent for an effect, but it must be for the mode or means by which the effect is produced; or the practical mode of operating, by means of certain agencies or properties of matter, or laws of physics, so as to produce a given effect.

§ 65. The consequences of allowing a patent for an abstract art or a principle, instead of allowing it only for a principle as applied to the production of a particular thing, or a particular result in matter, are apparent, when it is considered that principles are the elements of science, and if a patent could be taken for a newly-discovered principle in science, it would cover every object to which that principle could be applied, and the whole field of the arts would thus at once be occupied by a few monopolists. If a patent for an art or method of combining different elements or principles in science were possible, without its being confined to a particular product or result by means of such an art or method, every product, substance, or manufacture, to the creation of which that art or method could be applied, would be included in it. The distinction is this:—if a discovery consists merely in detecting some new property of matter, or of the elements of nature, or the laws of physics, but no special and positive application is made of it to specific fabrications, it is a discovery in science, or abstract mechanics, and not patentable; but if the discoverer makes use of such a new property, or avails himself of scientific or mechanical principles, for the production of a new substance, instrument, or machine, obtaining a result that is new, and of a vendible

description, the particular mode of producing that particular thing may be the subject of a patent.

§ 66. Although a patent cannot be taken out for a new principle, yet, where it has been embodied, so as to be capable of being made active, it is, as we have seen, a proper subject of a patent; and if any other person puts that principle into use, in any other form, it is a question for a jury, whether that form be not substantially an adaptation of the principle, applied with the same view to answer the same end, and merely imitated in substance, whatever difference there may be in point of form. If the patentee has invented some mode of carrying the principle into effect, he is entitled, it is said, to protect himself from all other modes of carrying the same principle into effect. In point of fact, the patent in such cases is taken, not for the principle itself, but for the mode of carrying into effect; so that when it is alleged that an infringement has taken place, the question is whether the defendant has undertaken to carry the same principles into effect in the same mode, so that, in substance, all the variations of means and appliances which he has made use of are merely colorable variations of the mode of carrying it into effect invented by the patentee. The patentee is entitled to protection against all colorable variations for carrying the same principle into practice for obtaining the same effect or result.

§ 67. Thus, there may be a patent for the practical application of a known thing to produce a particular effect: as in the case of Hartley's invention to protect buildings from fire, by the application of plates of metal. So, too, in the case of Forsyth's patent, for the application of detonating powder, which he did not invent, to the discharge of artillery, mines, &c., the patentee succeeded in an action against a party using a lock of different construction to any shown in the drawing annexed to his specification, and thus estab-

lished his right to the exclusive use and application of detonating powder as priming, whatever the construction of the lock by which it was discharged. In the same way, where the plaintiff had obtained a patent for the application of the flame of gas to singe off the superfluous fibres of lace and other goods, but did not claim the exclusive use of any apparatus or combination of machinery, except in connection with, and in aid of, the application of the flame of gas to the purposes described in his specification, he had a verdict founded on his sole right to use gas flame for the clearing of fibres from lace. So, also, where the invention consisted in the use of anthracite or stone coal, combined with the hot air-blast, in the smelting or manufacture of iron from iron stone, mine or ore; and the using of the hot blast was known before in the manufacture of iron with bituminous coal, and the use of anthracite or stone coal was known before in the manufacture of iron with cold blast, but the combination of the hot blast and the anthracite was not known before in the manufacture of iron, it was decided, that if the result produced by such a combination is either a new article or a better article, or a cheaper article to the public, than that produced before by the old method, such combination is an invention or manufacture intended by the statute, and may well become the subject of a patent. Again, where the invention was to manufacture iron tubes by welding them without the use of any maundril or internal support, but the patentee did not claim any precise construction of apparatus for this purpose, but his claim consisted in heating the previously prepared tubes of iron to a welding heat, and then, without any internal support, drawing them between dies or holes, by which the edges of the heated iron became pressed and welded together; and the defendant had made tubes upon the same principle of manufacture, but with a somewhat varied apparatus; the patentee had a verdict for the infringement.

§ 68. And where the invention consisted in the application of heated air as a blast for fires, forges, and furnaces, but the patentee claimed no particular form of apparatus for heating the air, but described an apparatus by which it might be heated; and the defendant had employed an apparatus confessedly superior in its effects to that described in the plaintiff's specification, and such an improvement as would have supported a patent; but as it involved the principle of the plaintiff's invention it was held an infringement.

§ 69. In cases of this class, where the most important part and merit of the invention consists in the conception of the original idea, rather than in the manner in which it is to be carried out, or applied in practice, it is clear that a principle carried into practice by *some* means, constitutes the subject-matter of the patent. Inventions of this class may have a character totally independent of the particular means by which they are applied, although the patentee must have applied the invention by some means; and when he has done so, the imitating that character may be a piracy of that invention, although the means may be very different, and such as in themselves might constitute a distinct or substantial invention. The machinery employed is not of the essence of the invention, but incidental to it. In cases like the foregoing, however, although machinery, apparatus, or other arrangement of matter is not of the essence of the invention, still it is of some importance. But there is another class of cases, where the application of a principle is still more distinctly seen to constitute the subject-matter of the invention, because it requires no peculiar and substantive machinery or apparatus, or composition of matter, to give it application.

§ 70. In these cases, the subject-matter of the invention is an application and adaptation of a natural or known agent, or a known substance, or thing, to produce a given effect.

As in Daniell's patent for improvements in dressing wool-len cloth, the invention consisted in immersing cloth, manu-factured in the usual manner, in hot water; and in Fusell's patent the cloth was subjected to a steam bath with the same object. In Christ's patent for "improvements in cop-per and other plate printing," the substance of the invention was in the preparation of the paper, and the particular means by which this was effected was by "putting a glazed enamelled surface on the paper by means of white lead and size, whereby the finer lines of the engraving are better exhibited than heretofore." So, too, the omission of any ingredient previously used in and considered essential to a particular process or manufacture, constitutes such a change in the series of processes pursued, as to be a new manu-facture. As where a patent was taken for "a new and im-proved method of making and manufacturing double canvass and sail cloth with hemp and flax, or either of them, with-out any starch whatever;" and where another invention, for rendering cloth fabrics water-proof, consisted in immers-ing them in various solutions in a different order from that which had been previously followed, although the same solutions had been previously used.

§ 71. It appears, then, that there is a large class of cases, where improvements or inventions in the mode of producing a particular known effect will be the subject-matter of let-ters-patent; and another large class of cases, in which the discovery and application of new means of producing an effect before unknown, will also be the subject-matter of a patent. One of these classes embraces all cases of the new application of known agents and things, so as to lead to a change in the series of processes by which the particular effect, result, or manufacture is produced, or by which an entirely new effect, result, or manufacture is produced. The other embraces all cases of the discovery and application of new

agents or things, by which a new effect or result is to be produced.

§ 72. In determining whether an alleged invention or discovery is such as will support a patent, the question must often arise, what is meant by the application of a principle? And this question involves two inquiries: first, how must the principle be made use of; and, secondly, what must be the result produced?

§ 73. It has already been stated, that the embodiment of a principle, so that it may be in a condition to act and to produce an effect, may be the subject of a patent. There is, in other words, a distinction between the principle that is so embodied, and the principle of such embodiment; the former is a truth of exact science, or a law of matter, or a rule of practice; while the latter is the practice founded on such truth, law, or rule.

§ 74. This practice consists in the application of the principle. But it is not every application of the principle, or every occasion on which the principle can be applied, that can be the subject of a patent. The principle may have been discovered and applied before, and when this is the case, the new application may be only what is described in patent law as a "double use," which cannot be the subject of a patent. In such cases, there may be in the new application some degree of novelty; something may have been discovered, or found out, that was not known before, but unless the new occasion on which the principle is applied leads to some kind of new manufacture, or to some new result, it is only a double use of that which was known before.

§ 75. Illustrations of this distinction may be seen in the application of well known medicines, drugs, and chemical

substances upon new occasions, or for new specific purposes, If it is discovered that a medicine, known and used as a valuable remedy in one class of diseases, has also great efficiency in curing another and different disease, there is a new application of a known thing, but it is only a double use of that thing.

§ 76. In order to escape the objection of a double use, it is necessary that the new occasion or purpose to which the use of a known thing is applied should not be merely analogous to the former occasions or purposes to which the same thing has been applied. There is a very material distinction between applying a new contrivance to an old object, and an old contrivance to a new object. The former may be patentable, but the latter cannot be, when the new object is merely one of a class possessing a common analogy. Thus, where a certain description of wheels had been used on other carriages than railway carriages, it was held that the plaintiff could not claim a patent merely for the use of such wheels upon railway carriages; and where a patent claimed as the invention of the patentee a process of curling palm leaf for mattresses, but it appearing that hair had long been prepared by the same process for the same purpose, it was decided to be a mere double use of an old process.

§ 77. When, therefore, the principle is well known, or the application consists in the use of a known thing to produce a particular effect, the question will arise, whether the effect is of itself entirely new, or whether the occasion only upon which the particular effect is produced is new. If the occasion only is new, then the use to which the thing is applied is simply analogous to what had been done before. But if the effect itself is new, then there are no known analogous uses of the same thing, and the process may constitute such an art as will be the subject of a patent. Thus, the

use of scissors to cut one substance produces a particular effect, entirely analogous to that produced when they are used to cut another substance ; the effect, therefore, is not new. But the use of gas to singe off the superfluous fibres of lace, was the use of an agent for a purpose not analogous to any other purpose for which the same agent had ever been used before ; and, therefore, the effect, as produced by that agent, was new. Great discrimination, however, is to be used, in determining whether the analogy is such as to justify the inference that the occasion only is new, and that the effect is not new. Of course, if any new contrivances, combinations, or arrangements are made use of, although the principal agents employed are well known, those contrivances, combinations, or arrangements, may constitute a new principle, and then the application or practice will necessarily be new also. But where there is no novelty in the preparation or arrangement of the agent employed, and the novelty professedly consists in the application of that agent, being a well-known thing ; or, in other terms, where it consists in the practice only, the novelty of that practice is to be determined, according to the circumstances, by applying the test of whether the result or effect produced is a new result or effect, never before produced. If a new manufacture is produced, or if an old manufacture is produced by new means, then the result or effect is new, as produced by that particular means, and the new case is such as can be protected by letters-patent. But if only an old manufacture is produced, or an old result is attained, by means analogous to what the same means have produced when applied the same way in other cases, the new occasion of using those means does not constitute a case that can be protected by a patent.

§ 78. The statute having undertaken to classify the subjects of patents under four general heads, we may here state what is supposed to be embraced in each of them.

§ 79. I. AN ART. The first subject of a patent mentioned in the statute is "any new and useful art," or "any new and useful improvement of an art." This term embraces the useful as distinguished from the fine arts. It applies to all those cases, where the application of a principle is the most important part of the invention, and where the machinery, apparatus, or other means by which the principle is applied, is incidental only, and not of the essence of the invention. It applies also to all those cases, where the result, effect, or manufactured article is old, but the invention consists in a new process or method of producing such result, effect, or manufacture. But where machinery or apparatus of any kind is the chief subject of invention, or where the result, effect, or article produced is new, the subject of the patent will fall under one or the other of the classes designated in the statute as "machine," "manufacture," or "composition of matter," according to its principal characteristics and objects.

§ 80. A case which occurred many years ago, furnishes an illustration of an "art," as the subject of a patent. The plaintiff alleged himself to be the inventor of a new and useful improvement in the printing of bank notes, which was said to furnish an additional security against counterfeiting. The invention, as summed up in his specification, was "to print copperplate on both sides of the note or bill; or copperplate on one side, and letter-press on the other; or letter-press on both sides of a bank note or bill, as an additional security against counterfeiting." The art of printing with both letter-press and copperplate was not the invention of the plaintiff. He made use of old materials and processes, in a new manner, for the purpose of producing a new effect, namely, a new security against counterfeiting. His patent, therefore, was for the new application of the process of printing by copperplate and letter-press, by printing on both sides

of the note; and this new application was held by the court to be an art within the terms of the statute.

§ 81. Another illustration is presented by a patent for a mode of casting iron rollers or cylinders, so that when the metal was introduced into the mould, it should receive a rotatory motion, by which the dross would be thrown into the centre instead of upon the surface of the cylinder. This was effected solely by changing the direction of the tube which conveyed the metal to the mould, from a horizontal or perpendicular position to a direction approaching a tangent of the cylinder.

§ 82. II. A MACHINE. A machine, to be the subject of a patent, must be a particular construction of mechanism, containing the improved method of producing an old effect, or the method of producing a new effect. If the subject of the invention or discovery is not a mere function, but a function embodied in some particular mechanism whose mode of operation and general structure are pointed out, and which is designed to accomplish a particular purpose, function, or effect, it will be a machine, in the sense of the patent law. A machine is rightfully the subject of a patent, when well-known effects are produced by machinery entirely new in all its combinations, or when a new or an old effect is produced by mechanism, of which the principle or mode of operation is new. The word "machine," in the statute, includes new combinations of machines, as well as new organizations of mechanism for a single purpose. There may be a patent for a new combination of machines to produce certain effects, whether the machines constituting the combination be new or old. In such cases, the thing patented is not the separate machines, but the combination. A single instance of such a combination is presented by the telescope, in which a convex and concave glass of different refracting powers are combined to make the object-glass.

What constitutes a claim for a combination only, and what will be a claim for the specific parts of a machine, as well as for the combination, is a question of construction on the patent and specification, the rules for which will be stated hereafter. But it is proper here to state the general principles applicable to combinations as the subject-matter.

§ 83. Where the invention consists of several distinct and independent improvements in the same machine, a patent may be taken for them in the aggregate, and such a patent will protect each of the improvements. But when the patent is for a new combination of existing machinery or machines, and does not specify or claim any improvements or inventions, except the combination, the subject-matter of the patent will be the combination alone, and the making of the separate machines will not be an infringement of it.

§ 84. The statute also makes a new and useful "improvement" of a machine the subject of a patent. A patent for the improvement of a machine is the same thing as a patent for an improved machine. Improvement, applied to machinery, is where a specific machine already exists, and an addition or alteration is made, to produce the same effects in a better manner, or some new combinations are added, to produce new effects. In such cases, the patent can only be for the improvement, or new combination. The great question, of course, when an alleged invention purports to be an improvement of an existing machine, is to ascertain whether it be a real and material improvement, or only a change of form. In such cases, it is necessary to ascertain, with as much accuracy as the nature of such inquiries admits, the boundaries between what was known and used before, and what is new, in the *mode of operation*. The inquiry, therefore, must be, not whether the same elements of motion, or the same component parts, are used, but whether the given effect is produced substantially by the same mode of operation,

and the same combination of powers, in both machines; or whether some new element, combination, or feature has been added to the old machine, which produces either the same effect in a cheaper or more expeditious manner, or an entirely new effect, or an effect that is in some material respect superior, though in other respects similar, to that produced by the old machine.

§ 85. This inquiry will therefore often involve the question, whether the alleged improved machine operates upon the same principle as the former machine; or, in other terms, whether it produces the same effect by the same mechanical means, or by means which are substantially the same. One machine may employ the same mechanical power in the same way as another machine, though the external mechanism may be apparently different. At the same time a machine may have an external resemblance to another, and yet may operate upon a different principle. It is, therefore, necessary, where the effect is the same, to determine whether the mode of operation, the peculiar device or manner of producing the effect, is substantially the same. Where the effect is different, the test of a sufficient "improvement" to sustain a patent will be the character and importance of the effect itself.

§ 86. There may be a patent for an improvement of a machine that is itself the subject of an existing patent. A patent including the subject-matter of a patent still in force, is valid, if the improvement only is claimed in the specification. In such cases, the new patent will come into force, after the expiration of the old one, or it may be applied by using a license under the former patent, or by purchasing the specific machine which the former patent covers, before the expiration of the latter.

§ 87. In an action for an infringement of a patent professing to be an improvement on a former patent, the speci-

fication of that former patent must be read. But it is not material whether a machine, made according to that specification of the first patent, would be useful or not, if it be shown that a machine, constructed according to the subsequent patent, is useful.

§ 88. In all cases of alleged improvements in machinery, the test of sufficiency is, whether there is anything material and new, that will be an improvement of the trade.

§ 89. III. A MANUFACTURE. The term "manufacture" embraces, in the English law, machinery, as well as substances or fabrics produced by art and industry. Our statute, however, having made an enumeration of the different classes of subjects which are patentable, it is to be presumed that this term was used to describe one of these classes only, namely, fabrics or substances made by the art or industry of man, not being machinery. It may sometimes require a nice discrimination, to determine whether one of these classes does not run into the other, in a given case; as, for instance, when a tool or instrument of a novel or improved construction is produced, to be used in connection with other machinery, or to be used separately. As an article of merchandise, found and sold separately in the market, such a production would be a manufacture; but, regarded with reference to its use and intended adaptation, it might be considered as a machine, or part of a machine. In determining, in such cases, how the patent for the article should be claimed, it would probably be correct to range it under the one or the other of these classes, according to the following test. If the article is produced and intended to be sold and used separately, as a merchantable commodity, and the merit of it, as an invention, consists in its being a better article than had been before known, or in its being produced by a cheaper process, than it may properly be considered simply as a manufacture. But if its merit appears only after its incorporation with some mechanism with

which it is to be used, and consists in producing, when combined with such mechanism, a new effect, then it should be regarded as a machine, or an improvement of an existing machine. These distinctions, however, are not vitally important to be taken in the patent itself, since it is not necessary to the validity of a patent, that the thing should be described with entire accuracy as "a machine" or "a manufacture." If the thing itself is correctly described, and it appears to be novel and useful, and unites all the other requisites of the statute, it may be left to general interpretation to determine, whether the subject-matter ranges itself under the one or the other of these classes, or whether it partakes of the characteristics of both. But if the subject-matter be neither a machine, nor a manufacture, or composition of matter, then it must be an art. There can be no valid patent, except it be for a thing made, or for the art or process of making a thing.

§ 90. IV. A COMPOSITION OF MATTER. The last class of patentable subjects mentioned in the statute is described by the term "composition of matter." It includes medicines, compositions used in the arts, and other combinations of substances intended to be sold separately. In such cases, the subject-matter of the patent may be either the composition itself, the article produced, or it may be the mode or process of compounding it. Generally speaking, the patent covers both, because, if the composition is itself new, the process by which it is made must also be new, and the law will protect both as the subjects of invention. But if the article itself be not new, but the patentee has discovered merely a new mode or process of producing it, then his patent will not be for a new "composition of matter," but for a new "art" of making that particular thing.

§ 91. With regard to this class of subjects, it is sufficient to observe, that the test of novelty must, of course, be, not

whether the materials of which the composition is made, are new, but whether the combination is new. Although the ingredients may have been in the most extensive and common use, for the purpose of producing a similar composition, if the composition made by the patentee is the result of different proportions of the same ingredients, or of the same and other ingredients, the patent will be good. The patentee is not confined to the use of the same precise ingredients in making his compound, provided all the different combinations of which he makes use are equally new.

§ 92. A new class of objects has, by a recent statute, been made the subjects of letters-patent. These are new and original *Designs* for a manufacture of metal and other materials; for the printing of woollen, silk, cotton, or other fabrics; for busts, statues or bas-relief, or composition in alto or basso-relievo; for any impression or ornament, or to be placed on any article of manufacture in marble or other material; for any new and useful pattern, print or picture, to be in any manner attached to, or fixed on, any article of manufacture; for any new or original shape or configuration of any article of manufacture; all such designs not being previously known or used by others. Patents for these subjects are to be issued on the like application and proceedings as those prescribed in other cases of patents, for the term of seven years, and on payment of one half the fee required by the general patent act.

§ 93. The patents thus granted relate to the forms impressed upon the material constituting particular articles of manufacture, and to the marks adopted by tradesmen, whether patterns, prints or pictures, to distinguish their own manufactures. They thus occupy a kind of middle ground between copyrights and patents, as patents for useful inventions have hitherto been classed. Indeed, the exclusive right to impress upon matter a particular form, or to affix a

particular device to a bale of merchandise, is very closely analogous to the exclusive right to print a particular book or engraving, if it is not precisely the same right. The same general principles, at least, must be resorted to, to determine the identity between two forms of matter, as forms, or between two devices, as devices, which determine the identity of two books or engravings. The leading principle, in such comparisons, is that which shows that the one thing is a colorable imitation of another, when there is not an exact resemblance; and although this principle has its place in that system of patent law which is applied to machinery, arts, manufactures or compositions of matter, it is more fully developed and of more frequent application in the law of copyright, as applied to books and engravings.

CHAPTER III.

UNITY OF THE SUBJECT-MATTER.

§ 94. THE several Acts of Congress on the subject of Patents, evidently require that the subject-matter of a patent should be one invention or discovery. The act of 1836, c. 357, § 6, speaks of an invention or discovery as the subject of a patent, and not of inventions or discoveries; and, throughout this and the subsequent statutes, the subject-matter is always described or referred to in the singular and not in the plural. It is, therefore, an important inquiry, how far several distinct things can be made the subject of one patent.

§ 95. In the first place, it is manifest that where there are two distinct and independent inventions, which have no necessary connection with each other, but which are applicable to different objects and purposes, they cannot be united in one patent; for the statute affords no warrant for including more than one subject-matter in one patent. In the second place, if two distinct subject-matters could be included in one patent, great inconvenience and confusion would arise, both to the patentee and the public, from the application of the rule of law which renders void the whole patent, where a part of the subject-matter turns out not to be original. Still, these positions do not determine when several apparently distinct objects constitute one subject-matter; or whether there is any leading principle which will enable us to draw the line between one collection of objects as constituting one subject-matter, and another collection of objects as constituting more than one subject-matter.

§ 96. The object which the inventor proposes to accomplish will always be the main guide, by which to determine whether his subject-matter is a unit or not. It may consist of several distinct inventions, or several machines capable of useful operation separately; but if the inventor has brought them together for a purpose which can only be effected by their union, that purpose indicates the true character of the subject-matter, when they are included in one patent, which goes for the accomplishment of that purpose. But if the patent goes for the combination, or the purpose to be effected by the several inventions united in one operation, and also goes for the distinct purposes which each invention is, by itself, capable of effecting, it is clear that several subject-matters are embraced in one patent.

§ 97. If, indeed, the patentee describes several distinct and independent parts of an invention, which are intended to be used in combination, and he is the first and original inventor of each of them, his patent will cover all the parts as well as the combination, and the use of any one of them by another person will be an infringement. But where the patentee is not the inventor of the several things used in the combination, but the combination itself is the true subject-matter of his patent, then the use of any number of those things, not amounting to the same combination, is no infringement.

§ 98. It has also been held that a patent may be taken for several improvements on one and the same machine, or for two machines, which are invented by the patentee, and conduce to the same common purpose and object, although they are capable of a distinct use and application, without being united together. But a patent cannot be taken for two distinct machines not conducing to the same common purpose or object, but designed for totally distinct and independent objects. Hence, it would seem to follow that

where a patentee has invented two distinct and different machines, each of which will accomplish the same end, he may unite them in one patent, as being distinct modes by which he contemplates the application of his invention, one of them being preferable in certain circumstances to the other, and *vice versa*. In this way, the unity of the subject-matter is preserved ; for the subject-matter consists, in such a case, of the object to be accomplished, and of the several modes by which it may be accomplished.

§ 99. There is also another aspect in which what we have called the unity of a patent must be preserved. It is impossible that any invention should have been produced both as the separate invention of a party, and as the joint invention of the same party and another or others. It must have been either the separate and sole invention of the party, or the joint invention of the same party, acting with others. A joint invention may be a good subject-matter of a patent, for the statute supposes the case of a joint invention and provides for it. But if an invention, which, in point of fact, was made by more than one person, is made the subject of a patent by any one of them, he cannot take the oath required by the statute, declaring himself to be the original and first inventor, or, if he does take it, his patent will be void. On the other hand, if his invention was the sole production of one party, a joint patent for it encounters the same objection. It is necessary, therefore, in all cases, that the subject-matter should be claimed as the sole invention of one party, if such is the fact, or as the joint invention of two or more parties, if it was invented by more than one.

§ 100. An inventor cannot have two subsisting valid patents, at the same time, for the same invention. The first patent, while it remains in full force and unrepealed, is an estoppel to any subsequent patent by the same person for the same invention.

CHAPTER IV.

THE PERSONS ENTITLED TO TAKE, RENEW, OR EXTEND PATENTS.

§ 101. WE have seen that the person or persons entitled to receive a patent can only be the inventor or inventors of the thing proposed to be patented. The statute does not admit of a patent for the introduction of an invention from abroad, however meritorious. The patentee must be the inventor, and the original and first inventor. But where the inventor has died before making application for a patent, the statute provides that the right of applying for and obtaining a patent shall devolve on his executor or administrator, in trust for his heirs or devisee, and that the oath or affirmation of original invention shall be varied accordingly.

§ 102. As the statute is silent on the subject of citizenship, it follows that an alien, who is the first and original inventor of any patentable subject, may apply for and obtain a patent, in the same manner as a citizen of the United States. The *eighth* section of the Act of 1836, c. 357, seems to contemplate the case of an application by an alien, by providing that the fact of a patent having been previously taken out in a foreign country, shall not debar the original and true inventor from a patent in the United States, where such foreign patent has not been taken out, and the invention published more than six months next before the filing of the specification and drawing. The subsequent Act of 1839, c. 88, § 6, has somewhat altered this provision, by declaring that no person shall be debarred from receiving a patent by reason of the invention having been patented in a foreign country more than six months prior to his application, *provided* that the same shall not have been introduced

into public and common use, in the United States, prior to the application for such patent.

§ 103. So that, under these two statutes, the rights of aliens are these. An alien who is the original and first inventor of a patentable subject, may obtain a patent therefor in the United States, under the same circumstances as a citizen, if he has not patented his invention in a foreign country. If, however, he has taken out a patent for his invention and published the same abroad, if he applies for a patent in the United States, he can obtain it, provided the subject has not been introduced into public and common use in the United States, before his application, notwithstanding he may have received a patent for it abroad more than six months prior to his application here. But if his application in the United States is made within six months of the date or publication of his foreign patent, and yet the subject has in the mean time been introduced into public and common use in this country, it is not quite clear whether the statutes, taken together, mean to give him a patent, notwithstanding such public use, or whether they leave his case open to the general objection of a prior public use. It would seem to have been the intention of Congress, in these provisions, to leave the space of six months open to foreigners, where they are original and true inventors, and not to exclude them by reason of the introduction of their inventions within that period, commencing from the date of the patent or publication in a foreign country.

§ 104. The *eighteenth* section of the Act of 1836 provides for an extension of a patent beyond the term of its limitation, on the application of the patentee, in the mode therein prescribed. It has been determined, that an administrator is competent to apply for and receive this grant, although the patentee had disposed of all his interest in the then existing patent.

§ 105. The question whether an assignee under the first term of the patent can claim or exercise any right or interest under the renewed patent, has been much discussed ; but it has been finally determined by a majority of the Supreme Court of the United States, that the extension does not enure to the benefit of assignees under the original patent, but to the benefit of the administrator, when granted to an administrator, in his capacity as such ; but that assignees, who were in the use of the patented machine at the time of the renewal, have still a right to use it, though not to make and sell it.

§ 106. It was also held, in the same case, that a covenant by the patentee, made prior to the law authorizing extensions, that the covenantee should have the benefit of any improvement in the machinery, or alteration, or renewal of the patent, did not include the extension by an administrator, under the act of 1836 ; but that it must be construed to include only renewals obtained upon the surrender of a patent on account of a defective specification.

PART II.

PROCEEDINGS TO OBTAIN, RENEW,

OR

EXTEND A PATENT.

PART II.

PROCEEDINGS TO OBTAIN, RENEW, OR EXTEND A PATENT

CHAPTER I.

THE SPECIFICATION.

§ 107. HAVING ascertained the kinds of subjects for which letters-patent may be obtained, and the parties entitled to take, renew, or extend them, we have now to state the proceedings requisite to the issuing, renewal, and extension of patents, and the principles which govern their construction. As the first step to be taken, in making application for a patent, is to prepare a written description of the invention or discovery, the requisites of this instrument, called the specification, and the rules for its construction, will first engage our attention.

§ 108. The Act of Congress of July 4th, 1836, c. 357, § 6, contains the following enactment :

“ But before any inventor shall receive a patent for any such new invention or discovery, he shall deliver a written description of his invention or discovery, and of the manner and process of making, constructing, using and compounding the same, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same ; and, in case of any machine, he shall fully

explain the principle and the several modes in which he has contemplated the application of that principle or character by which it may be distinguished from other inventions; and shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery. He shall, furthermore, accompany the whole with a drawing or drawings, and written references, where the nature of the case admits of drawings, or with specimens of ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment, where the invention or discovery is of a composition of matter; which descriptions and drawings, signed by the inventor and attested by two witnesses, shall be filed in the patent office; and he shall, moreover, furnish a model of his invention, in all cases which admit of a representation by model, of a convenient size to exhibit advantageously its several parts."

§ 109. The specification, under the law, occupies a relation to the patent somewhat different from the rule in England. In England, the specification does not form part of the patent, so as to control its construction; but the rights of the inventor are made to depend on the description of his invention, inserted in the title of the patent, and cannot be helped by the specification, the office of which is to describe the mode of constructing, using, or compounding the invention mentioned in the patent. But in the United States, the specification is drawn up and filed before the patent is granted, and is referred to in the patent itself, a copy being annexed. It is, therefore, the settled rule in this country that the patent and the specification are to be construed together, in order to ascertain the subject-matter of the invention, and that the specification may control the generality of the terms of the patent, of which it forms a part. In like manner, drawings annexed to a specification, in compliance with the statute, are held to form a part of it, and are to be regarded in the

construction of the whole instrument. Where the term patent, therefore, is used, in the following discussion of the rules of construction, it will be understood to include the specification and drawings annexed to it.

§ 110. In construing patents, it is the province of the court to determine what it is that is intended to be patented, and whether the patent is valid in point of law. Whether the invention itself be specifically described with reasonable certainty is a question of law upon the construction of the terms of the patent; so that it is for the court to determine whether the invention is so vague and incomprehensible as in point of law not to be patentable, whether it is a claim for an improved machine, for a combination, or a single invention; and, in short, to determine what the subject-matter is, upon the whole face of the specification and the accompanying drawings. It is, therefore, the duty of the jury to take the construction of the patent from the court, absolutely, where there are no terms of art made use of which require to be explained by evidence, and no surrounding circumstances to be ascertained as matter of fact, before a construction can be put upon the instrument. But where terms of art requiring explanation are made use of, or where the surrounding circumstances affect the meaning of the specification, these terms and circumstances are necessarily referred to the jury, who must take the construction from the court, conditionally, and determine it according as they find the facts thus put to them.

§ 111. It is, on the other hand, the province of the jury to decide, on the evidence of experts, whether the invention is described in such full, clear, and exact terms, as to enable a skilful person to put it in practice, from the specification itself. As specifications are drawn by persons more conversant with the subject than juries, who are selected indiscriminately from the public, and as they are addressed to

competent workmen, familiar with the science or branch of industry to which the subject belongs, the evidence of those persons must be resorted to, who are able to tell the jury that they see enough on the face of the specification to enable them to make the article, or reproduce the subject of the patent, without difficulty.

§ 112. The rule of our law that the specification may control the generality of the terms of the patent is subject to this qualification. If there is a clear repugnancy between the description of the invention as given in the specification, and the invention stated in the letters-patent, the patent will be void ; for if the letters are issued for an invention that is not described in the specification, the statute is not complied with. The rule which allows the letters-patent to be controlled by the specification cannot extend to a case where the terms of the former are inconsistent with those of the latter.

§ 113. The general rule for the construction of patents, in this country, is, that they are to be construed liberally, and not to be subjected to a rigid interpretation. The nature and extent of the invention claimed by the patentee is the thing to be ascertained ; and this is to be arrived at, through the fair sense of the words which he has employed to describe his invention.

§ 114. But, at the same time, it is to be observed, that the statute prescribes certain requisites for this description of an invention, which are of long standing ; and the decisions of the courts, explaining and enforcing these requisites, have established certain rules of construction, intended to guard the public against defective or insufficient descriptions, on the one hand, and to guard inventors, on the other hand, against the acuteness and ingenuity and captious objections of rivals and pirates. The foundation of all these rules of construction is to be found in the object of the specification, which may be thus stated.

§ 115. The specification has two objects: one is to make known the manner of constructing the machine, (if the invention is of a machine,) so as to enable artisans to make and use it, and thus to give the public the full benefit of the discovery after the expiration of the patent. The other object of the specification is, to put the public in possession of what the party claims as his own invention, so as to ascertain if he claim anything that is in common use, or is already known, and to guard against prejudice or injury from the use of an invention which the party may otherwise innocently suppose not to be patented. It is, therefore, for the purpose of warning an innocent purchaser, or other person using a machine, of his infringement of the patent; and at the same time of taking from the inventor the means of practising upon the credulity or the fears of other persons, by pretending that his invention is more than what it really is, or different from its ostensible objects, that the patentee is required to distinguish his invention in his specification.

§ 116. It has been justly remarked, by a learned writer, that the statute requisites for a good specification run so much into each other, in their nature and character, and are so blended together, that it is difficult to treat of them separately. But the leading purposes of the whole of the statute directions are two: *first*, to inform the public what the thing is of which the patentee claims to be the inventor, and therefore the exclusive proprietor during the existence of his patent; *second*, to enable the public, from the specification itself, to practise the invention thus described, after the expiration of the patent.

§ 117. I. The first rule for preparing a specification is,
To describe the subject-matter, or what the patentee claims to have invented, so as to enable the public to know what his claim is.

Whether the patentee has done this, in a given case, is, as

we have seen, generally a question of law for the court, on the construction of the patent. It is not necessary that the language employed should be technical, or scientifically accurate, although at the same time it must not mislead. If the terms made use of will enable the court to ascertain clearly, by fair interpretation, what the party intends to claim, an inaccuracy or imperfection in the language will not vitiate the specification. But it must appear with reasonable certainty what the party intends to claim; for it is not to be left to minute references and conjectures, as to what was previously known or unknown; since the question is not what was before known, but what the patentee claims as new. If the patentee has left it wholly ambiguous and uncertain, so loosely defined, and so inaccurately expressed, that the court cannot, upon fair interpretation of the words, and without resorting to mere vague conjecture of intention, gather what the invention is, then the patent is void for this defect. But if the court can clearly see what is the nature and extent of the claim, by a reasonable use of the means of interpretation of the language used, then, it is said, the patentee is entitled to the benefit of it, however imperfectly and inartificially he may have expressed himself. For this purpose, phrases standing alone are not to be singled out, but the whole is to be taken in connection.

§ 118. The statute requires the patentee to give "a written description of his invention or discovery." This involves the necessity, in all cases where the patentee makes use of what is old, of distinguishing between what is old and what is new. He is required to point out in what his invention or discovery consists; and if he includes in his description what has been invented before, without showing that he does not claim to have invented that, his patent will be broader than his invention, and, therefore, void. Whatever appears to be covered by the claim of the patentee, as his own invention, must be taken as part of the claim, for courts of law are not at liberty

to reject any part of the claim ; and, therefore, if it turns out that anything claimed is not new, the patent is void, however small or unimportant such asserted invention may be.

§ 119. But there is a very important rule to be attended to in this connection, viz., that a specification should be so construed, as, consistently with the fair import of language, will make the claim co-extensive with the actual discovery. So that a patentee, unless his language necessarily imports a claim of things in use, will be presumed not to intend to claim things which he must know to be in use.

§ 120. The object of the distinction between what is new and what is old is to show distinctly what the patentee claims as his invention. But it has been said, that the mere discrimination between what is old and what is new, will not, in all cases, show this, for perhaps the patentee does not claim all that is new. But the purpose of the statute shows that the object of the specification is, to state distinctly what the patentee claims as the subject-matter of his invention or discovery ; and the discrimination commonly made between what is new and what is old, is one of the means necessary to present clearly the subject-matter of the invention or discovery. In order to make this discrimination, the patentee is not confined to any precise form of words. The more usual form is to state affirmatively what the patentee claims as new, and if he makes use of anything old, to state negatively that he does not claim that thing. It is not enough that the thing designed to be embraced by the patent should be made apparent on a trial, by a comparison of the new with the old machine. The specification must distinguish the new from the old, so as to point out in what the improvement consists.

§ 121. In describing what is old, it is not always necessary to enter into detail. Things generally known, or in

common use, may be referred to in general terms, provided they create no ambiguity or uncertainty, and provided such reference is accompanied by an intelligible description of what is new. In describing an improvement of a machine, or, what is the same thing, an improved machine, great care must be taken not to describe the whole in such a way as to make it appear to be claimed as the invention of the patentee. The former machine, or other thing, should be set forth in the patent sufficiently to make known, according to the nature of the case, what it is that the patentee engrafts his improvement upon; he should then disclaim the invention of the thing thus referred to or described, and state distinctly his improvement as the thing which he claims to have invented. One of the most common defects in a specification consists in that sort of vagueness and ambiguity in the manner of describing the invention, which makes it difficult or impossible to determine what the invention is. This is an objection distinct from an ambiguity in the terms made use of. Thus, where the directions contained in a specification were "to take any quantity of lead and calcine it, or minium, or red lead," the objection was that it was uncertain whether the minium and red lead were to be calcined, or only the lead. So, too, if it be stated that a whole class of substances may be used to produce a given effect, when, in fact, only one is capable of being so used successfully, an ambiguity is at once produced, and the public are misled; but if the patentee states the substances which he makes use of himself, and there are still other substances which will produce the effect, and he claims them by a generic description, as comprehended within his invention, his claim will not be void for ambiguity, or too broad for his invention, provided the combination is new in respect to all the substances thus referred to.

§ 122. In like manner, where a particular effect or purpose in machinery is a part of the invention, and that effect

may be produced in several modes, it is sufficient for the patentee to state the modes which he contemplates as best, and his claim will not be void, as too vague or comprehensive, although he claims the variations from those modes as being equally his invention, without describing the manner of producing those variations.

§ 123. This kind of ambiguity is also distinguishable from the want of clear or specific directions, which will enable a mechanic to make the thing described. A specification may be perfectly sufficient, as to the point of stating what the invention is, and yet the directions for making the thing may be so vague and indefinite, as not to enable a skilful mechanic to accomplish the object. It is for this reason, as we have seen, that the question, whether the specification discloses what the invention is, is a question for the court on construction of the patent; while the question, whether it sufficiently describes the mode of carrying the invention into practice, is a question for the jury.

§ 124. The ambiguity produced by a too great fulness of detail in the specification is likely to mislead both in determining what the invention claimed is, and in determining whether it is described with such accuracy as will enable a competent workman to put it in practice. We shall have occasion hereafter to state the rule, that the patentee is bound to disclose the most advantageous mode known to him, and any circumstance conducive to the advantageous operation of his invention; and it is a correlative of this rule, that if things wholly useless and unnecessary are introduced into the specification, as if they were essential, although the terms are perfectly intelligible, and every necessary description has been introduced, and the parts claimed are all newly invented, the patent may be declared void. The presumption, in such cases, is, that the useless and unnecessary descriptions were introduced for the purpose of

overloading the subject and clouding the description, in order to mislead the public and conceal the real invention.

§ 125. There is one case where it seems to have been held that an improved mode of working his machine by the patentee, different from the specification of his patent, casts upon him the burthen of showing that he made the improvement subsequently to the issuing of his patent; otherwise it will be presumed that he did not disclose in his specification the best method known to him. But where a patentee of an improved machine claimed as his invention a part of it which turned out to be useless, it was held that this did not vitiate the patent, the specification not describing it as essential to the machine. At the same time, it is necessary that the specification should be full and explicit enough to prevent the public from infringing the right of the patentee. An infringement will not have taken place, unless the invention can be practised completely by following the specification; otherwise, it has been said, it would be an infringement to do that perfectly, which, according to the specification, requires something else to be done to make it perfect. An infringement is a copy made after and agreeing with the principle laid down in the patent; and if the patent does not fully describe everything essential to the making or doing of the thing patented, there will be no infringement by the fresh invention of processes which the patentee has withheld from the public.

§ 126. The ambiguity produced by a misuse of terms, so as to render the specification unintelligible, will be as fatal as any other defect. Thus, where the directions were to use "sea-salt, or sal-gem, or fossil-salt, or any marine-salt," and it appeared that "sal-gem" was the only thing that could be used, and that "fossil-salt" was a generic term, including "sal-gem," as well as other species of salt, it was held that the use of the term "fossil-salt" could only tend to mislead

and to create unnecessary experiments, and therefore that the specification was in that respect defective. In like manner, where the specification directed the use of "the finest and purest chemical white-lead," and it appeared that no such substance was known in the trade by that name, but that white-lead only was known, the specification was held defective. But a mere mistake of one word for another in writing or printing, if explained by other parts of the patent and specification, as the use of the word "painting" for "printing," is immaterial.

§ 127. The description of an improvement, when an improvement is the real subject-matter of the patent, should be made in such a manner as will clearly show that the improvement only is claimed by the patentee. If a machine substantially existed before, and the patentee makes an improvement therein, his patent should not comprehend the whole machine in its improved state, but should be confined to his improvement; and this is true, although the invention of the patentee consists of an addition to the old machine, by which the same effects are to be produced in a better manner, or some new combinations are added, in order to produce new effects. But if well-known effects are produced by machinery which in all its combinations is entirely new, the subject-matter will be a new machine, and of course the patent will cover the whole machine.

§ 128. If the invention be an improvement, and be claimed as such, but nothing is said of any previous use, of which the use proposed is averred to be an improvement, the patent may incur the risk of being construed as a claim of entire and original discovery. Hence arises the necessity for reciting what had formerly been done, and describing a different mode as the improvement claimed.

§ 129. But in describing the improvement of a machine in

use and well known, it is not necessary to state in detail the structure of the entire and improved machine. It is only necessary to describe the improvement, by showing the parts of which it consists, and the effects which it produces. In the case of machinery there is a particular requisition in the statute, designed to ensure fulness and clearness in the specification. "And in case of any machine, he (the patentee) shall fully explain the principle, and the several modes in which he contemplated the application of that principle, or character by which it may be distinguished from other inventions; and shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery." By the principle of a machine, as used in this clause of the statute, is to be understood the peculiar structure and mode of operation of such machine; or, as the statute itself explains it, the character by which it may be distinguished from other inventions. By explaining "the several modes in which he has contemplated the application of that principle," the statute is presumed to direct the patentee to point out all the modes of applying the principle, which he claims to be his own invention, and which he means to have covered by his patent, whether they are those which he deems the best, or are mere formal variations from the modes which he prefers. In other words, he is to state not only the peculiar device or construction which he deems the best for producing the new effect exhibited in his machine, but also all the other modes of producing the same effect, which he means to claim as being substantially applications of the same principle. But, in doing this, it is not, as we have seen, necessary for him to enter into a minute description of the mode of producing those variations of structure which he thus claims, in addition to the structure which he prefers. It is sufficient, if he indicates what variations of the application of the principle he claims beyond those which he deems the best.

§ 130. The duty of determining what the claim of the patentee is involves the necessity of determining whether the description in the specification discloses a patentable subject. The real invention may be a patentable subject; but at the same time it may be claimed in such a way as to appear to be a mere function, or abstract principle, which it will be the duty of the court to declare is not patentable; whereas, if it had been described differently, it would have been seen to be a claim for a principle or function embodied in a particular organization of matter for a particular purpose, which is patentable. The patentee may have been engaged in investigations into the principles of science or the laws of nature. He may have attained a result, which constitutes a most important and valuable discovery, and he may desire to protect that discovery by a patent; but he cannot do so by merely stating his discovery in a specification. He must give it a practical application to some useful purpose, to attain a result in arts or manufactures not before attained, and his specification must show the application of the principle to such a special purpose, by its incorporation with matter in such a way as to be in a condition to produce a practical result. Care should be taken, therefore, in drawing specifications, not to describe the invention as a mode or device for producing an effect, detached from machinery, or from the particular combination or use of matter by which the effect is produced. The danger in such cases is, that the claim will appear to be a claim for an abstract principle, or for all possible modes of producing the effect in question, instead of being, what alone it should be, a claim for the particular application of the principle which the patentee professes to have made.

§ 131. This is well illustrated by several cases. In one, the invention claimed was "the communication of motion from the reed to the yarn-beam, in the connection of the one with the other, which is produced as follows," describing the

mode. The patent was sustained only by construing it as a claim for the specific machinery invented by the patentee for the communication of motion from the reed to the yarn-beam, specially described in the specification. As a claim for all possible modes of communicating the motion, &c., it would have been utterly void. In another case, a patent "for an improvement in the art of making nails, by means of a machine which cuts and heads the nails at one operation," was seen at once not to be a grant of an abstract principle, but of a combination of mechanical contrivances operating to produce a new effect, and constituting an improvement in the art of making nails. So, too, where the patentee, in a patent for a machine for turning irregular forms, claimed "the method or mode of operation in the abstract explained in the second article, whereby the infinite variety of forms, described in general terms in this article, may be turned or wrought," and the second article in his specification explained the structure of a machine, by which that mode of operation was carried into effect, and the mode of constructing such a machine so as to effect the different objects to be accomplished, it was held that the specification did not claim an abstract principle or function, but a machine. So, also, it has been held that the making of wheels on a particular principle, which is described in the specification, is the subject of a patent; and where the plaintiff claimed as his invention "the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure against the back of such chair, as above described," it was held not to be a claim to a principle, but to an application to a certain purpose, and by certain means.

§ 132. But on the other hand, a claim to a principle, to be carried into effect by any means, without describing an application of the principle by some means, is a claim to the abstract principle. As, where a specification stated that

"it is claimed as new, to cut ice of a uniform size by means of an apparatus worked by any other power than human," it was held that this claim to the art of cutting ice by means of any other power than human was utterly void. It is, therefore, essential that the specification should describe some practical mode of carrying the principle into effect; and then the subject-matter will be patentable, because it will be, not the principle itself, but the mode of carrying it into effect; and on the question of infringement it will be for the jury to say, whether another mode of carrying it into effect is not a colorable imitation of the mode invented by the patentee.

§ 133. This being the case, the question next arises whether it is necessary, after having described the application of the principle by some mechanical contrivance, or other arrangement of matter, to claim in the specification all the other forms of apparatus, or modifications of matter, by which the principle may also be applied in order to produce the same beneficial effect, or whether the patent does not cover all these, without particular description, by covering the application of the principle. When we consider that the subject-matter of such a patent is the application of the principle effected by means of some machinery, or other arrangement, it will be apparent that the reason why the patentee is bound to describe some machinery or practical method of making the application, is in order to show that he has actually applied the principle, and to enable others to do so after him. But the real subject of the patent is the practical application of the principle; and hence, although the means by which the patentee has made that application must be described, in order to show that he has done what he says he has done, and to enable others to do what he says can be done, yet a variation of the means and machinery, if it produces the same beneficial effect, that is, the same application of the same principle, does not show

that the party making such variation has not infringed the patent, by making use of that which exclusively belonged to another, viz., the application of the principle to produce a particular effect.

§ 134. Examples will best illustrate this distinction. Minter's patent, for a self-adjusting chair, which has been already referred to, was a case of the application of a well known principle, that of the lever, for the first time applied to a chair. He made no particular claim of shape or form for the construction of the chair, but showed that if a lever was applied to the back of a chair, so that the weight of the seat would act as a counterpoise to the back, in whatever posture the occupant might be sitting or reclining, a self-adjusting chair would be obtained. Now, there might be various modes of constructing a chair on this principle; but as the constructing of chairs on this principle was the true subject of the patent, the court held the making of any chair upon the same principle of a self-adjusting leverage, was an infringement.

§ 135. Neilson's patent involved the principle of blowing furnaces for the smelting of iron, with a blast of hot air, instead of cold, and he applied that principle by finding out a mode by which air may be introduced in a heated state into the furnace, viz., by heating the air in a close vessel between the blowing apparatus and the furnace. The specification, after stating that the air, heated up to red heat, may be used, but that it is not necessary to go so far to produce a beneficial effect, proceeded to state that the size of the receptacle would depend on the blast necessary for the furnace, and gave directions as to that. It then added, "The shape of the receptacle is immaterial to the effect, and may be adapted to local circumstances." After great consideration, it was held that the word "effect" was not meant to apply to the degree of heat to be given to the air in

the heating receptacle, but that any shape of the heating receptacle would produce the beneficial effect of passing heated air into the furnace. This construction settled what the patent was for, viz., the application of the principle of blowing with hot air, by means of a vessel in which the air should be heated on its passage from the blowing apparatus to the furnace. Consequently the subject-matter embraced all the forms of apparatus by which the application of the same principle could be effected.

§ 136. In this case, it was also said that the omission to mention in the specification anything which the patentee knows to be necessary for the beneficial enjoyment of the invention is a fatal defect; but the omission to mention something which contributes only to the degree of benefit, provided the apparatus would work beneficially and be worth adopting, is not a fatal defect.

§ 137. As it is the duty of the court to determine, on the construction of the patent, what the subject-matter is, it is often necessary to decide whether the patentee claims a combination of several things, or the distinct invention of several things, or both. General principles cannot be laid down for the determination of questions of this kind, depending exclusively on the particular facts. There is, however, one circumstance, that will always be decisive, in construing a patent, against a claim for the several things described in the specification, and that is, that one or more of them is not new. If this turns out to be the case, the question may then be, whether the patent can be sustained for the combination. In determining this question, it is to be observed that a patent for a combination of three things cannot at the same time be a patent for a combination of any two of them. If the subject-matter is the combination of any given number of things, or processes, or parts, no

portion of the combination less than the whole can be considered at the same time as being also the subject-matter.

§ 138. The rule which we have thus endeavored to illustrate, which requires the patentee so to describe his invention as to enable the public to know what his claim is, of course imposes upon him the duty of not misleading the public, either by concealing anything material to the invention, or by adding anything not necessary to be introduced. The ambiguity which we have been considering in the preceding pages may be produced involuntarily; but there is a special provision of the statute aimed at the voluntary concealment or addition of anything material. The statute enacts it as one of the defences to an action on a patent, that the specification "does not contain the whole truth relative to his invention or discovery, or that it contains more than is necessary to produce the described effect; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public." This defence will be made good, when it appears that the patentee fraudulently concealed something that he knew to be material to the practice of his invention, or fraudulently added something which he knew was not useful, material, or necessary, at the time when he prepared his specification. If it was subsequently discovered not to be useful, material, or necessary, his patent will not be affected by it.

§ 139. II. The second rule for preparing a specification is,

To describe the invention in such a manner as to enable the public to practise it, from the specification alone.

§ 140. The statute requires the patentee to describe "the manner and process of making, constructing, using, and compounding his invention or discovery, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable

any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same ; and in case of any machine, he shall fully explain the principle and the several modes in which he has contemplated the application of that principle or character by which it may be distinguished from other inventions ; and shall particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery."

§ 141. We have seen that the question whether a specification answers this requisite of the statute, is a question of fact for the jury ; and although it is not necessary that technical terms should be made use of in a specification, they often are made use of, and often require to be explained by evidence. In judging of a specification, therefore, a distinction must be taken between that sort of ambiguity which a person unacquainted with technical terms would encounter, and the ambiguity which might appear to a person skilled in the particular art. It is not necessary that the specification should contain an explanation level with the capacity of every person, which would often be impossible. The statute allows the patentee to address himself to persons of competent skill in the art, and it requires him to use such full, clear, and exact terms as will enable that class of persons to reproduce the thing described from the description itself. It is, therefore, important to ascertain what the rules of construction are, which define what will constitute an ambiguity or uncertainty to artists and persons skilled in the subject.

§ 142. And *first*, with regard to the persons whose judgment and apprehension are thus appealed to ; they are not those who possess the highest degree of skill or knowledge in the particular art or science to which the subject-matter belongs, nor are they day-laborers ; they are practical work-

men, or persons of reasonably competent skill in the particular art, science, or branch of industry. If persons of the highest skill were those whom the law has in contemplation, the object of a specification, which is to enable competent persons to reproduce the thing patented, without making experiments, inventions, or additions of their own, could not generally be answered.

§ 143. *Secondly*, as to the application of their knowledge and skill, by such persons, to the understanding and carrying out of the description given by the patentee. The description must be such as will enable persons of competent skill and knowledge to construct or reproduce the thing described, without invention or addition of their own, and without repeated experiments. Thus it has been held, that any material alteration to be made in existing apparatus or machinery, must be stated, and not left to be supplied by the workman ; as, with reference to the materials employed, or their form, or the speed of the parts, or their relative dimensions, where these are material. So, too, the specification is insufficient, if information must be derived from experiments, or from seeing others make the thing described ; or, as it has also been said, if it requires the solution of a problem. And, generally, a specification, to be valid, must be such as, when fairly followed out by a competent workman, without invention or addition, the object of the patent may be obtained.

§ 144. Slight defects in a specification will sometimes prevent the object of the patent from being obtained, by any competent person who may undertake to apply it, and will therefore render the patent void, because they create a necessity for the exercise of inventive power on the part of the person who thus undertakes to apply the description. As the omitting to state the use of tallow, which the patentee employed for facilitating the manufacture of steel

trusses; or, in a patent medicine, stating the ingredients without stating the proportions. If anything be omitted, which gives an advantageous operation to the thing invented, it will vitiate the patent; as the omission to state the use of a material, *aqua-fortis*, which the patentee used himself for obtaining the effect more rapidly; for the patentee is bound to give the most advantageous mode known to him, and any circumstance conducive to the advantageous operation; otherwise, he does not pay the price for his exclusive privilege, because he does not give the public the benefit of all that he knows himself.

§ 145. So, too, if a specification directs the use of a substance, which, as generally known, contains foreign matter, the presence of which is positively injurious, and does not show any method of removing that foreign matter, or refer to any method generally known, or state how the substance in a proper state can be procured, the specification will be defective.

§ 146. In like manner, a specification will be defective, if an article be described by a particular name, the patentee knowing that the requisite article cannot ordinarily be procured under the name by which it is described in the specification, and it be not stated where it may be procured; because the public have not that full and precise information which they have a right to require. A specification will also be defective, which states that the manner in which a power is to be applied varies with the circumstances in some measure, without showing in what the improvement consists, as distinguished from all former modes of doing the same thing. If obscure terms be employed for the sake of concealment, so as to induce the belief that elaborate processes are necessary, when the simplest will succeed, the specification is bad; and if a patentee states that he prefers

a certain material, having ascertained that no other will answer, he misleads the public.

§ 147. The rule, however, which forbids a patentee to leave the public to find out by experiment how to apply his discovery or invention, is subject to one important limitation. If, for instance, the specification of a patent for a composition of matter is so drawn, that no one can use the invention, without first ascertaining by experiment the exact proportion of the different ingredients required to produce the intended result, the patent will be void. If, in such a specification, the patentee gives a certain proportion as the general rule applicable to the ordinary state of the ingredients, he may, without the risk of having his patent declared void for vagueness and uncertainty, state other and variable proportions as exceptions to the rule, applicable to the varying states of the ingredients, although the precise proportions adapted to a given state of the ingredients other than the usual state, can only be ascertained by computing it from the general rule, after the particular state of the ingredients is ascertained. In such cases, it is for the jury to decide, on the evidence of experts, whether the general rule given is susceptible of application, and whether it furnishes the means of determining the proportions to be used, in the excepted cases, by the exercise of the ordinary knowledge and skill of the workman.

§ 148. But although it is necessary that a specification should clearly and fully describe the invention, and should give the best process, materials, and methods, known to the inventor, yet it is not necessary for the patentee to describe the mode of making everything which he uses, or detail known processes, or explain the terms appropriate to the particular art, or science, or branch of industry, to which his invention belongs. The specification is, as we have seen.

addressed to persons acquainted with the nature of the business; some technical knowledge is presumed on the part of those who will undertake, after the patent is expired, to carry out the invention; and such persons are to be called as witnesses to explain the language to the jury, while the patent is in force, and to show that it is capable of being understood by those to whom it is addressed. Accordingly it has been said, that a specification containing scientific terms, which are not understood, except by persons acquainted with the nature of the business, is not bad because an ordinary person does not understand it, provided a scientific person does; but a specification using common language, and stating that by which a common man may be misled, though a scientific man would not, when it does not profess to use scientific terms, and an ordinary man is misled by it, would not be good. And it has been held, that if a specification contain an untrue statement in a material circumstance, of such a nature that, if literally acted upon by a competent workman, it would mislead him, and cause the experiment to fail, the specification is therefore bad, and the patent invalidated, although the jury, on the trial of an action for the infringement of the patent, find that a competent workman, acquainted with the subject, would not be misled by the error, but would correct it in practice.

§ 149. The specification need not describe that which is within the ordinary knowledge of any workman who would be employed to put up the apparatus; as, a condenser, in constructing a gas apparatus. So, too, a deviation from the precise dimensions shown by the specification and model, so as to make different parts work together, is within the knowledge of any workman. But if the practical application of the invention involves a particular kind of knowledge on the part of the workman, requiring him to do that which a person of ordinary engineering skill ought to know how to do, it must at least suggest to him that that thing is to be

done, if it does not specifically point out the mode of doing it. In like manner, it is not necessary, in the description of a machine, to state of what material every part should be made, where the principle of operation and the effect are the same, whether the parts be made of one material or another; but if a particular material be essential to the successful operation of the machine, as the patentee uses it, he must direct the use of that material.

§ 150. In the case of machinery, the statute directs the patentee to accompany his specification with "a drawing or drawings, and written references, where the nature of the case admits of drawings." The object of annexing drawings is both to distinguish the thing patented from other things known before, and to explain the mode of constructing the subject of the patent. It has been settled, that the drawings constitute a part of the specification, when annexed thereto, and may be used to explain or help out the otherwise imperfect description in the specification. So that it is not necessary that the description should be wholly in writing, but it may be partly in writing and partly in drawing; and if, by a comparison of the words and the drawings, the one will explain the other sufficiently to enable a skilful mechanic to perform the work, and to show what is the invention claimed, the specification will be sufficient. And it has been held, that in order to make a drawing when annexed to or accompanying a specification, part of the specification, so that the written description may be read by it, it is not necessary that the written description should contain references to the drawing; that the direction in the statute, to annex "drawings and written references," means that where references from the writing to the drawing are necessary to the understanding of the machine or improvement, they are to be made; but that the description of many machines or improvements, when accompanied by a drawing, may be perfectly understood without references in the description itself.

§ 151. It was formerly held in England that the drawings annexed to specifications ought to be drawn on a scale; so that the relation and proportion of the parts to each other, and the dimensions of the different parts, might appear in due ratio to each other. But this rule has been modified; and it seems now to be considered that if a mechanic can make the subject of the patent from the drawing in perspective, it is not necessary that there should be a scale. Indeed, it is a necessary consequence of the rule which makes the written description open to explanation by the drawing, to hold that the drawing is open to explanation by the written description. So long as both together enable the public to know and practise the invention, it must be immaterial whether the drawing is made upon a scale or not. But if the subject of the patent could not be made, without many experiments, unless the drawing is upon a scale, then undoubtedly the whole specification taken together, being the written description and the drawing, would be defective.

§ 152. It should not be forgotten, that the statute requires a formal attestation of the specification and drawings. They must be signed by the inventor and by two witnesses. It has been suggested, that the signing of the specification referring to the drawings is in effect attesting the drawings. But whether the statute is to be so construed as to require both the specification and the drawings to be signed, has not been decided.

§ 153. Provision is made by the thirteenth section of the Act of 1836 for the amendment of the specification by the addition of new improvements made after the patent has issued. The description of any such new improvement may be filed in the Patent Office, and is directed to be annexed by the commissioner to the original specification, with a certificate of the time of its being so annexed, and thereafter it is

to have the same effect as if it had been embraced in the original specification.

§ 154. A still further provision is made for the amendment of a redundant specification, by the filing of a *Disclaimer*. The Act of 1837, ch. 45, § 7, provides, that, "whenever any patentee shall have, through inadvertence, accident, or mistake, made his specification of claim too broad, claiming more than that of which he was the original or first inventor, some material and substantial part of the thing patented being truly and justly his own, any such patentee, his administrators, executors and assigns, whether of the whole or of a sectional interest therein, may make disclaimers of such parts of the thing patented as the disclaimant shall not claim to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent, which disclaimer shall be in writing, attested by one or more witnesses, and recorded in the Patent Office, on payment by the person disclaiming, in manner as other patent duties are required by law to be paid, of the sum of ten dollars. And such disclaimer shall thereafter be taken and considered as part of the original specification, to the extent of the interest which shall be possessed in the patent or right secured thereby, by the disclaimant, and by those claiming by or under him subsequent to the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing the same."

§ 155. The 9th section of the same act provides as follows: "(Anything in the fifteenth section of the act to which this is additional to the contrary notwithstanding) that, whenever by mistake, accident, or inadvertence, and without any wilful default or intent to defraud or mislead the public, any patentee shall have in his specification claimed to be the original and first inventor or discoverer of

any material or substantial part of the thing patented, of which he was not the first and original inventor, and shall have no legal or just right to claim the same, in every such case the patent shall be deemed good and valid for so much of the invention or discovery as shall be truly and bona fide his own: *Provided*, it shall be a material and substantial part of the thing patented, and be definitely distinguishable from the other parts so claimed without right as aforesaid. And every such patentee, his executors, administrators and assigns, whether of a whole or a sectional interest therein, shall be entitled to maintain a suit at law or in equity on such patent for any infringement of such part of the invention or discovery as shall be bona fide his own as aforesaid, notwithstanding the specification may embrace more than he shall have any legal right to claim. But, in every such case in which a judgment or verdict shall be rendered for the plaintiff, he shall not be entitled to recover costs against the defendant, unless he shall have entered at the Patent Office, prior to the commencement of the suit, a disclaimer of all that part of the thing patented which was so claimed without right: *Provided, however*, that no person bringing any such suit shall be entitled to the benefit of the provisions contained in this section, who shall have unreasonably neglected or delayed to enter at the Patent Office a disclaimer as aforesaid."

§ 156. The disclaimer mentioned in the seventh section has been held to apply solely to suits pending when the disclaimer was filed in the Patent Office; and that mentioned in the ninth section to suits brought after the disclaimer is so filed.

CHAPTER II.

PROCEEDINGS AT THE PATENT OFFICE.

- I. Caveat for incomplete invention.
- II. The Petition, Oath, Payment of fees.
- III. Signatures of the Secretary of State and Commissioner.
- IV. Interfering applications.
- V. Renewal and Amendment of Patents.

CAVEAT FOR INCOMPLETE INVENTION.

§ 157. The twelfth section of the Act of July 4, 1836, provides that any citizen of the United States, or alien who shall have been resident in the United States one year next preceding, and who shall have made oath of his intention to become a citizen thereof, who shall have invented any new art, machine, or improvement thereof, and shall desire further time to mature the same, may, on payment of the sum of twenty dollars, file in the Patent Office a *caveat*, setting forth the design and purpose thereof, and its principal and distinguishing characteristics, and praying protection of his right, till he shall have matured his invention; which sum of twenty dollars, in case the person filing such caveat shall afterwards take out a patent for the invention therein mentioned, shall be considered a part of the sum required for the same. And such *caveat* shall be filed in the confidential archives of the office, and preserved in secrecy. And if application shall be made by any other person within one year from the time of filing such a *caveat*, for a patent of any invention with which it may in any respect interfere, it shall be the duty of the commissioner to deposit the description, specifications, drawings, and model, in the confidential archives of the office, and to give notice, by mail, to the person filing the caveat, of such application,

who shall, within three months after receiving the notice, if he would avail himself of the benefit of his caveat, file his description, specifications, drawings, and model; and if, in the opinion of the commissioner, the specifications of claim interfere with each other, like proceedings may be had in all respects as are provided in the case of interfering applications.

THE PETITION, OATH, PAYMENT OF FEES, ETC.

§ 158. The Act of 1836, § 6, requires an inventor who desires to obtain a patent to "*make application in writing* to the Commissioner of Patents," &c. This application in writing has, from the origin of the government, been by way of petition, generally with the specification annexed and referred to, or accompanied by the specification, filed at the same time. The form of the petition is not material, provided it set forth the facts to which the applicant is required to make oath. When filed it is to be presumed to adopt the specification, or schedule, filed at the same time, and to ask for a patent for the invention therein described.

§ 159. The applicant is also required to make oath or affirmation that he does verily believe that he is "the original and first inventor," &c., "and that he does not know or believe that the same was ever before known or used," and also of what country he is a citizen; which oath or affirmation may be made before any person authorized by law to administer oaths.

§ 160. The applicant is required to make oath or affirmation, not that he is the original and first inventor or discoverer, but that he believes himself to be so. He cannot know absolutely whether he first invented or discovered the thing for which he claims a patent, but he may believe that he did; and it is only when he is willing to make oath that he so believes, that the law grants him the patent. A sub-

sequent section of the same statute provides for one case, in which a patent shall still be valid, if issued to an applicant who believed himself to be the first inventor or discoverer, although he was not so, in point of fact. This case is where the invention or discovery had been previously known or used in a foreign country, but had not been patented or described in any public work, and the patentee was ignorant of that fact. If the patentee, before making his application, had learned that the thing had been known or used in a foreign country, although not patented or described in any foreign work, he cannot have believed himself to be the first inventor or discoverer. But if he learn the fact after he has taken the oath, it will not invalidate his patent.

§ 161. An irregularity in the form of the oath will be cured by the issuing of the patent, and it seems that a patent would be valid, when issued, although the oath might not have been taken at all. It has been held that the taking of the oath is only a prerequisite to the granting of the patent, and in no degree essential to its validity; so that if the proper authorities, from inadvertence or any other cause, should grant a patent, where the applicant had not made oath according to the requisitions of the statute, the patent would still be valid. But where the oath has been taken and is recited in the patent, it is the foundation of the burthen of proof thrown on the party who alleges that the patentee was not the original and first inventor.

§ 162. The ninth section of the statute provides that before any application for a patent shall be considered by the commissioner, the applicant shall pay into the treasury of the United States, or into any of the deposit banks to the credit of the treasury, if he be a citizen of the United States, or an alien, and shall have been resident in the United States for one year next preceding, and shall have made oath of his intention to become a citizen thereof, the

sum of thirty dollars; if a subject of the King of Great Britain, the sum of five hundred dollars.

SIGNATURES OF THE SECRETARY OF STATE AND OF THE
COMMISSIONER OF PATENTS.

§ 163. The Act of July 4, 1836, c. 357, § 5, provides that patents shall be issued from the Patent Office "in the name of the United States, and under the seal of said office, and be signed by the secretary of state, and countersigned by the commissioner of said office."

§ 164. It has been held that the sanction of the secretary of state to a correction of a clerical mistake in letters-patent, may be given in writing afterwards; and that he need not re-sign the letters themselves. But the commissioner, if he be the same officer who countersigned the letters originally, may make the correction, without re-signing or re-sealing. If the mistake occurs in the copy of the patent, and not in the record or enrolment, it may be corrected by the commissioner, and made to conform to the original. If the mistake in the enrolled patent be a material one, the letters cannot operate except on cases arising after the correction is made; but if the correction be of a clerical mistake only, it operates back to the original date of the letters, unless, perhaps, as to third persons, who have acquired intervening rights to be affected by the alteration.

§ 165. It has also been held, that a signature to the patent, and a certificate of copies by a person calling himself "acting commissioner," is sufficient on its face in controversies between the patentee and third persons, as the law recognizes an acting commissioner to be lawful.

RENEWAL OR AMENDMENT OF A PATENT.

§ 166. The Act of July 4, 1836, § 13, makes the following provision in case of a defective or insufficient specifica-

tion, or of the subsequent invention of something which the patentee wishes to add to his specification.

§ 167. " And be it further enacted: That whenever any patent which has heretofore been granted, or which shall hereafter be granted, shall be inoperative or invalid, by reason of a defective or insufficient description or specification, or by reason of the patentee claiming in his specification as his own invention, more than he had or shall have a right to claim as new; if the error has or shall have arisen by inadvertency, accident, or mistake, and without any fraudulent or deceptive intention, it shall be lawful for the commissioner, upon the surrender to him of such patent, and the payment of the further duty of fifteen dollars, to cause a new patent to be issued to the said inventor, for the same invention, for the residue of the period then unexpired for which the original patent was granted, in accordance with the patentee's corrected description and specification. And in case of his death, or any assignment by him made of the original patent, a similar right shall vest in his executors, administrators, or assignees. And the patent so reissued, together with the corrected description and specification, shall have the same effect and operation in law, on the trial of all actions, hereafter commenced, for causes subsequently accruing, as though the same had been originally filed in such corrected form, before the issuing out of the original patent. And whenever the original patentee shall be desirous of adding the description and specification of any new improvement of the original invention or discovery which shall have been invented or discovered by him subsequent to the date of his patent, he may, like proceedings being had in all respects as in the case of original applications, and on the payment of fifteen dollars, as herein before provided, have the same annexed to the original description and specification; and the commissioner shall certify, on the margin of such annexed description and specification,

the time of its being annexed and recorded ; and the same shall thereafter have the same effect in law, to all intents and purposes, as though it had been embraced in the original description and specification."

168. It has been held that the decision of the commissioner in respect to the surrendering of an old patent, and granting a new one, is not reëxaminable elsewhere, unless it appear on the face of the patent that he had exceeded his authority, and there is a clear repugnancy between the old and the new patent, or the new one has been obtained by collusion between the commissioner and the patentee. If neither of these things appears, then the presumption that the renewed patent is for the same invention as the old patent is conclusive.

§ 169. The same learned judge has also held, that the statutes which authorize the reëssue of a patent, because of a defective or redundant specification or description, without fraud, or for the purpose of adding thereto an improvement, do not require the patentee to claim, in his renewed patent, all things, which were claimed in his original patent, but they give him the privilege of retaining whatever he deems proper.

§ 170. When a patent is thus renewed, it is granted for the unexpired term, commencing from the date of the original patent which is surrendered. Consequently, it operates from the commencement of the original, and will enure to the benefit of assignees, who became such before the renewal, although no assignment is made to them after the renewal.

§ 171. The Supreme Court of the United States have decided, upon great consideration, that the commissioner of patents can lawfully receive a surrender of letters-patent for a defective specification, and issue new letters-patent upon

an amended specification, after the expiration of the term for which the original patent was granted, and pending the existence of an extended term of seven years. Such surrender and renewal may be made at any time during such extended term.

§ 172. Specifications may also be amended by another process, that of filing a disclaimer, whenever, through inadvertence, accident or mistake, the original claim was too broad, claiming more than that of which the patentee was the original or first inventor, provided some material and substantial part of the thing patented is justly and truly his own. Such a disclaimer may be filed in the Patent Office by the patentee, his administrator, executors, and assigns, whether of the whole or of a sectional interest in the patent; and it will be thereafter taken and considered as part of the original specification, to the extent of the interest of the disclaimant in the patent, and by those claiming by or under him subsequent to the record thereof.

§ 173. Patents are sometimes extended by special Acts of Congress, passed upon the application of the patentees. But by the Act of July 4th, 1836, c. 357, § 18, the secretary of state, the commissioner of the Patent Office, and the solicitor of the treasury were constituted a board of commissioners to hear evidence for and against the extension prayed for, and to decide whether, having due regard to the public interest therein, it is just and proper that the term of the patent should be extended, because the patentee has failed to obtain a reasonable remuneration. The commissioners being satisfied that the patent ought to be renewed, it was made the duty of the commissioner of patents to make a certificate on the original patent, showing that it is extended for a further term of seven years from the expiration of the first term.

§ 174. But by a very recent statute, passed May 27, 1848, this power is vested solely in the commissioner of patents, who is required to refer the application to the principal examiner, having charge of the class of inventions to which the case belongs, and, upon his report, to grant or refuse the extension, upon the same principles and rules that have governed the board provided by the former act.

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PART III.

TRANSMISSION OF THE INTEREST

IN

LETTERS-PATENT.



PART III.

TRANSMISSION OF THE INTEREST IN LETTERS-PATENT

CHAPTER I.

OF ASSIGNMENTS AND LICENSES.

§ 175. The act of Congress of July 4, 1836, § 11, provides "that every patent shall be assignable in law, either as to the whole interest, or any undivided part thereof, by any instrument in writing; which assignment, and also every grant and conveyance of the exclusive right under any patent, to make and use, and to grant to others to make and use, the thing patented within and throughout any specified part or portion of the United States, shall be recorded in the Patent Office within three months from the execution thereof, for which the assignee or grantee shall pay to the commissioner the sum of three dollars."

§ 176. The interest that is thus made assignable by statute is undoubtedly assignable at common law. But it has been deemed proper to regulate the assignment of patents by statute. An invention may be assigned for the patent before it is taken out, so as to vest in the assignee the exclusive interest when the patent has issued; but the application must be made and the specification duly sworn to by the inventor, and the assignment must be recorded. The interest in a patent may also be assigned by operation

of law, in case of the bankruptcy of the patentee, as well as by his voluntary assignment. There is no question that a patent already obtained passes to assignees in bankruptcy; and in England it has been held that a patent issued after an act of bankruptcy and an assignment by the commissioners, but before the bankrupt had obtained his certificate, passes to the assignees. It is necessary, however, that the invention should have been perfected, and, at least, that the bankrupt inventor should have applied for a patent. It was said, in reference to such a case, that the schemes which a man has in his head, or the fruits which he may make of them, do not pass; but if he has carried his schemes into effect, and thereby acquired a beneficial interest, that interest is of a nature to be effected by an assignment in bankruptcy. Under our system, I conceive that such an interest would have been acquired, after the application for a patent. The party has then done all that the law requires for the creation of the interest, and the issue of the patent furnishes him with the evidence of his exclusive right. Whether an invention perfected and reduced to practice, capable of supporting a patent, but for which no application had been made for a patent, at the time when the assignment in bankruptcy attaches to the bankrupt's effects, would pass to the assignees, is a more difficult question. The mere material in which the invention had been incorporated would undoubtedly pass, but this is distinguished from the invention itself, which has not become a vested interest under the patent law, until the proper application has been made by the proper party, who must be the inventor and no one else. It would seem that the assignees would not render themselves liable to an action for infringement, at the suit of the subsequent patentee (the bankrupt) for selling such materials, as in the case of a newly invented machine, patented after the property in the materials had passed to them; but whether the purchaser could thus acquire any right, as against the inventor, to use those materials in the shape of

the invention, as intended to be used by the inventor, who had used due diligence in obtaining his patent, may admit of doubt.

§ 177. The statute renders it necessary to record the assignment in the Patent Office. Three classes or degrees of interest by assignment, and no others, are thus required to be recorded; *first*, an assignment of the whole patent; *second*, an assignment of an undivided part of the whole patent; and, *third*, a grant or conveyance of the exclusive right under the patent for any specified part or portion of the United States. Assignments, of these several classes, must be recorded in the Patent Office within three months of the execution thereof, to effect intermediate *bonâ fide* purchasers, without notice. But it has been held that in other respects the statute is merely directory, and that any subsequent recording will be sufficient to pass the title to the assignee.

§ 178. But the assignee can maintain no suit, in law or equity, upon the patent, either as a sole or as a joint plaintiff, against third persons, until his assignment has been recorded, according to the requisitions of the statute. For the purposes of such a suit, however, it will be sufficient if the assignment is recorded at any time before the trial or hearing.

§ 179. An assignment vests in the assignee an interest in the patent, indefeasible by act of the patentee, so that the patentee cannot, by a surrender of his patent, affect the rights of an assignee, to whom he has previously granted the whole or a part of the patent, without the consent of such assignee. In fact, the statute which authorizes a surrender and reissue of a patent, on account of a defective specification, expressly saves the rights of assignees in the patent, by this clause; "and in case of his (the patentee's)

death, or any assignment by him, made of the original patent, a similar right (that of surrender and reissue) shall vest in his executors, administrators, or assignees." Strictly, therefore, an assignee should be a party to the surrender; but if he is not, and the surrender is made by the patentee, and the patent is reissued to him, it seems that assignments, made before the surrender, are not vacated, but the patent remains the same, in contemplation of law, and the interests of assignees remain the same, without any new assignment.

§ 180. For a still stronger reason, if the assignee of a patent has consented to the surrender, although he is not a party on the record of the application at the Patent Office, it enures to his benefit and becomes his act, and he is properly made a party in any suits brought for infringement within the territory covered by the assignment. But the assignee or grantee, under the original patent, does not acquire any right under the extended patent, which may be obtained pursuant to the 18th section of the act of 1836, unless such right be expressly conveyed to him by the patentee. But assignees, who were in the use of a patented machine at the time of the renewal, have still a right to use *the machine*, under the clause of the statute which declares that "the benefit of such renewal shall extend to assignees and grantees of the right to use the thing patented to the extent of their respective interests therein."

§ 181. When a disclaimer is to be filed, under the 7th and 9th sections of the Act of 1837, an assignee of the whole patent will be the proper party to file it; and if the patent has been previously assigned in part, it has been held that the disclaimer will not operate to the benefit of such an assignee in any suit by him, at law or in equity, unless he joined in the disclaimer.

§ 182. The distinction between an assignment and a

license relates to the interest in the patent, as distinguished from the right to use the thing patented, or to practise the invention. An assignment is a grant in writing of the whole or a part of the exclusive right vested in the patentee by the patent; and such a part may be designated as an undivided part of the whole patent, extending wherever the patent extends, or as a grant of the exclusive right within a particular district. Each of these grants may carry with it the right to grant to others the power of making and using the thing patented, and in no degree diminishes the right of the patentee; it does not *per se* carry the right to grant to others the power of exercising the invention, although it may involve the right of selling the specific thing made, with the incidental right of using it. Thus when the patentee sells to another a patented machine, made by himself, or permits such person to make the machine, the party thus authorized becomes a licensee, with the right of selling the machine, which carries with it the right of using it. But that party has no interest in the patent; he cannot authorize others to make the machine; nor does the permission extended to him diminish, in any degree, the exclusive right of the patentee to make or to authorize others to make the patented machine. So, where the subject of the patent is a compound or composition of matter, if the patentee authorizes another to make and sell the article, that party becomes a licensee, with the right of selling the article he may make to others, to be used by them, in the way of consumption, for the purposes for which it is intended, but he has no interest in the patent, and no power to grant to others any portion of the exclusive right of making the thing, which is vested in the patentee.

§ 183. Upon this distinction it may often be necessary to determine whether a particular instrument amounts to an assignment, or only to a license. The statute seems to assume and proceed upon the clear distinction, that every

grant which embraces the exclusive right under the patent, either as to a part or the whole, is an assignment; and it requires such grants to be recorded. The test to be applied, therefore, is, whether the instrument vests in the grantee the exclusive right, either for the whole country, or for a particular district, of making and using the thing patented, and of granting that right to others. If it does so, it is an assignment. But if it merely grants a right to make, use, and sell the thing patented, whether in limited or unlimited quantities, without making that right exclusive, it is a license. Thus, where the patentee granted "the right and privilege of making, using, and selling the friction matches," being the thing patented, and the right "to employ in and about the manufacture, six persons, and no more, and to vend said matches in any part of the United States," with a proviso that nothing herein contained should prevent or restrict the patentee from "making and vending the same, or of selling and conveying similar rights and privileges to others," with a further proviso that the grantee "shall not manufacture the said matches in any place within forty miles of M.;" it was held that this was a license or authority to make and vend the matches, without any exclusive right of making them, and consequently did not require to be recorded under the statute. The same would be true of a grant to make and use a certain number of patented machines, in a particular place; but if the covenant were that the grantee might make and use ten machines, and that he should have the exclusive right of making and using the machines in a particular district, limiting him to ten, it seems that it would be an assignment, provided the grantee were authorized to grant to others the right to make and use any of the ten machines. In such a case as this, the patentee would have limited the exercise of his own privilege to ten machines, and would have granted the whole of his privilege, as he had seen fit to limit it, to the grantee who would thus have acquired an interest in the

patent. But if the parties to such an instrument were mutually to agree to open the subject of the contract again, the patentee might enlarge the exclusive privilege indefinitely as to the quantity of machines; but the relations of the parties would still be those of assignor and assignee, as long as the exclusive right should be vested in the grantee.

§ 184. Still, if the grant of an exclusive right to work under the patent appears, upon the tenor of the whole instrument, to have been intended by the parties to operate as a license and not as an assignment, it seems that it should be so construed; and such an intention will be evinced by provisos for determining the license and by the reservation of a rent or per centage on the gross sales or manufactures, instead of granting an interest in the profits of working the patent. But whether such an instrument, conferring the exclusive right for a particular district, would amount to an assignment, under our statute, or to such a grant as requires to be recorded, will further depend, it would seem, upon the fact of there being a right vested in the grantee to grant to others the "right to make and use the thing patented."

§ 185. Whether a license is assignable must depend upon its terms. A mere license to the party, without mentioning his *assigns*, is of course nothing more than the grant of a power, or the dispensation with a right or remedy, and confers a personal right upon the licensee which is not transmissible to any other person. It seems, however, that the use of the word *assigns*, in the granting part of such an instrument will not necessarily operate to make a license assignable, when from the tenor of the whole instrument it appears to have been intended as a personal privilege. But whether a license is assignable or not, as to the entirety of the privilege, it is still more questionable whether it is apportionable, so as to permit the licensee to grant rights to others to work the patent, by subdividing the rights that may

have been granted to himself. This question arose in a case already referred to, where the patentee of friction matches granted to another party the right to make, use, and sell the friction matches, and "to have and to hold the right and privilege of manufacturing the said matches, and to *employ, in and about the same six persons*, and no more, and to vend the said matches in the United States." The licensee afterwards undertook to sell and convey to a third person "a right of manufacturing friction matches according to letters-patent, &c., in said town of A., to the amount of *one right*, embracing one person only so denominated in as full and ample a manner to the extension (extent) of the said one right, as the original patentee." It was held that every conveyance of this sort must be construed according to its own terms and objects, in order to ascertain the true intent and meaning of the parties; and that in this case, the interest under the license was an entirety, incapable of being split up into distinct rights, each of which could be assigned to different persons in severalty.

§ 186. The relations of the patentee and the licensee, with regard to the validity and extent of the patent, must depend on the terms of the license. The taking of a naked license or permission to work under a patent, does not, without some recitals or covenants amounting to an admission, estop the licensee from denying the validity of the patent, or the fact of infringement, if he is subsequently proceeded against. It is necessary to look into the instrument, and to ascertain what recitals and covenants will deprive a licensee of the defence to which all other persons may resort. If, by his agreement, the licensee has admitted that the process or thing which he uses is the patented process or thing, and he is afterwards proceeded against for not complying with the terms of his agreement, it seems that he will not be at liberty to show, that he did not use the patented thing or process. So, too, if the deed contain recitals or statements amounting

to an admission of the validity of the patent, either as to the novelty or utility of the supposed invention, or the sufficiency of the specification, the licensee will be estopped, in an action of covenant for the rent or license dues, to deny the validity of the patent, by setting up anything contrary to the admissions in his deed. In like manner, it has been held that a licensee, who has paid an annuity in consideration of a license to use a patent privilege, which he has had the benefit of, but which afterwards turns out to be void, cannot recover back the money he has paid, in an action for money had and received. This is upon the ground that the licensee has had the benefit of what he stipulated for; but if the patent turns out to be invalid, before a payment becomes due, and the license deed contains no admission of its validity, the licensee may plead the fact in answer to an action of covenant for money reserved by the license.

§ 187. And where there has been no enjoyment by the licensee, who, in an agreement not under seal, has stipulated to pay a certain sum for the right to use a patent privilege, the invalidity of the patent will be a good plea in bar to an action upon the agreement, on the ground of failure of consideration. The competency of a licensee to dispute the validity of a patent is a question which may also arise where the licensee is proceeded against for an infringement, on the ground that he is using the patent contrary to the conditions in his license. If, for instance, a party receives a license to use a patented machine, on condition that he pay a stipulated sum on all the articles which he may manufacture by means of the machine, and after having been put in possession of the machine, he uses it, but refuses to pay the rent or license dues, or to comply with any other condition, he may be enjoined in equity for an infringement. The sole right which such a party can have to use the machine depends on the license; and he can use under the license only by complying with the conditions; so that his use aside from the

license is an infringement. If, in such a case, the licensee refuses to pay under the license, or sets up, as a reason for not performing any of his covenants, that the patentee has not complied with the terms of the contract on his part, will the licensee be permitted to question the validity of the patent, in any proceeding either at law or in equity, for using the patent without right? This must depend, in the first place, upon the admissions in the license deed. If the deed contains no admission of the plaintiff's title, then the licensee will not be estopped from denying it; but if it contains such admissions, and especially, if, after such admissions, the licensee has worked under the license, and has paid the license dues before his refusal, or if he still continues to claim under the deed, and excuses his non-payment by reason of the non-performance of some covenant on the part of the patentee, he will be estopped from denying the validity of the patent, and the sole question will be whether he is liable for an infringement; which will depend upon the validity of his excuse for not paying, on account of the non-performance by the patentee. But, in the second place, if the licensee repudiates the contract altogether, and stands upon the right of every man to use the alleged invention because it is not new, or because the patent is void for some other reason, he foregoes all benefit of the license as a permission to use the invention, and becomes a trespasser. In that event, I conceive that his solemn admission under hand and seal, of the validity of the patent, may still be used against him as an estoppel, both in an action and under a bill in equity for the infringement, unless he can show that he was deceived and misled, otherwise a party might obtain possession of the invention, under a license, and then repudiate the contract at his pleasure.

PART IV.

INFRINGEMENT,

AND

THE REMEDY THEREFOR.

PART IV.

INFRINGEMENT AND THE REMEDY THEREFOR.

CHAPTER I.

INFRINGEMENT.

§ 188. The statute grants to the patentee, for a term not exceeding fourteen years, "the full and exclusive right and liberty of making, using, and vending to others to be used, the invention or discovery;" and it gives a right of action for damages, in case of "making, using, or selling" the thing patented. No definition of what is to constitute an infringement is given in the statute; but, of course, there is an infringement of the right, when one "makes, uses, or sells a thing" which another has the exclusive right of "making, using, and vending to others to be used." But what constitutes making, using, and selling, with reference to the various things that may be the subjects of patents, so as to interfere with the exclusive right of the patentee, is left by the statute for interpretation.

§ 189. An infringement takes place whenever a party avails himself of the invention of the patentee, without such variation as will constitute a new discovery; or, as it has also been stated, an infringement is a copy made after and agreeing with the principle laid down in the specification.

There will be, therefore, different modes in which patents may be infringed, according to their subject-matter. Our statute has made use of the phrases "making, using, and vending to others to be used," to comprehend the exclusive right of the patentee; and consequently the making, using, or selling, are the modes in which that right may be infringed, according to the nature of the subject-matter. We are now, therefore, to consider the meaning of these phrases, as applied to the infringement of the several classes of things which may be the subjects of letters-patent.

§ 190. 1. *As to a machine.* — When a machine is the subject of a patent, the patent covers both the machine itself, the thing invented, and the mode or process of making it. The statute vests in the patentee the exclusive right of making it, the exclusive right of using it, and the exclusive right of vending it to others to be used. It is, therefore, an infringement to make a patented machine, for use or for sale, though in fact it is neither used nor sold; it is an infringement to use it, though made by another; and it is an infringement to sell it, whether made by one's self or by another; because the statute vests the exclusive right of doing all these things in the patentee.

§ 191. The doctrine, that the making of a machine for philosophical experiment, or for the purpose of ascertaining its sufficiency to produce the described effect, would not be an infringement, is founded in the supposition that such a making is not injurious to the patentee. It is true that the making for the purpose of using becomes directly injurious to the patentee, because it deprives him of a purchaser of that which he alone is authorized to construct and sell; and it is also true, that when the machine is made by one not the patentee, for the mere purpose of experimenting on the sufficiency of the specification, no profits are taken away from the patentee. There is therefore a difference, undoubt-

edly, in the tendency of the two acts ; but it is not quite clear that the legislature meant to recognize this difference, or that they used the words "make," "use," &c., in any other than their ordinary sense. The prohibition is express, that no other person shall "make," and that no other person shall "use;" and it has been held that the motive of testing the practical utility of a machine is no answer to a charge of infringement by having "used" it.

§ 192. It is said that there may be a constructive using of a patented machine ; as, if a person were to make a machine, in violation of the right of the patentee, or purchase it of one who has so made it, and then hire it out to another person for use, he might, under some circumstances, be held responsible for using it. There is a case, where the plaintiff was the patentee of a machine for making watch-chains, and it appeared that the defendant had made an agreement with one C. to purchase of him all the watch-chains, not exceeding five gross a week, which C. might be able to manufacture within six months, and C. had agreed to devote his whole time and attention to the manufacture of watch-chains, and not to sell or dispose of any of them, so as to interfere with the exclusive privilege secured to the defendant of purchasing the whole quantity which it might be practicable for C. to make ; and it was proved that the machine used by C. with the knowledge and consent of the defendant, in the manufacture, was the same with that invented by the plaintiff, and that all the watch-chains thus made by C. were delivered to the defendant according to the contract ; the Supreme Court of the United States held that if the contract were real and not colorable, and if the defendant had no other connection with C. than that which grew out of the contract, it did not amount to a "using" by him of the plaintiff's machine ; but that such a contract, connected with evidence from which the jury might legally infer, either that the machine which was to be employed in the manufacture

of the patented article was owned wholly or in part by the defendant, or that it was hired by the defendant for six months, under color of a sale of the articles to be manufactured with it, and with intent to invade the plaintiff's patent right, would amount to a breach of his right.

§ 193. It seems to be in accordance with the doctrine of this case, to consider that a using of a machine is to be taken as proved, either when the party charged has used it himself, or has employed others to use it for him, or has profited by the use of it.

§ 194. As to the sale of a patented machine, in order to be an infringement of the right, it must be something more than a sale of the materials, either separate or combined ; it must be a sale of a complete machine, for use as a machine, which is patented, in order to render the vendor liable for an infringement of the patent by a "sale."

§ 195. The sale of the articles produced by a patented machine, or by a process which is patented, is not an infringement.

§ 196. But if the person who sells is connected with the use of the machine, he is responsible as for an infringement ; and if a court of equity have jurisdiction of the person, such a vendor may be enjoined, although the machine may be used beyond the jurisdiction of the court.

§ 197. The Supreme Court of the United States have decided that an assignment of an exclusive right to use a machine, and to vend the same to others for use, within a specified territory, authorizes the assignee to vend elsewhere, out of that territory, articles manufactured by such machine.

§ 198. 2. *As to a manufacture or composition of matter.*

— Assuming that the word is used in our statute to describe the vendible and tangible product of any branch of industry, a patent for a “manufacture” will be infringed by the same acts as a patent for a composition of matter, that is, by making, using, or selling the thing itself.

§ 199. In cases of this kind, however, some difficulty may arise as to what constitutes a using. When the subject-matter is the thing produced, the patent will generally also cover the process of making it; as in the case of a paint, a medicine, a stove, or a fabric of cloth. In these cases, a using of the invention would, in one sense, consist in putting it in practice. But the statute vests the exclusive right to use the thing itself in the patentee, because it is the thing produced which is the subject of the patent. Strictly speaking, therefore, the use of the thing at all, in any form of consumption or application, would be an infringement. But as the purpose of the law is to prevent acts injurious to the patentee, with as little restraint on the public as possible, it may be necessary to consider whether the word “using” is employed in a limited or an unlimited sense.

§ 200. Whether the prohibition against using or vending a patented composition is to be considered to extend to every form of use, so as to give the proprietor a right to maintain an action, is worthy of consideration. If a patented medicine is made by one not authorized to make it, and is sold to a person who consumes it, it would be a somewhat inconvenient restraint upon the public to hold that the latter is to be considered as using the invention in the sense of the statute. He cannot know that the article is not made by the true proprietor; the probability is that he intends to purchase the genuine composition, and that he is deceived into supposing that he does purchase it. Still, in strictness, perhaps he may be held liable to an action for using the thing itself by consuming it.

§ 201. It would seem, therefore, in regard to all those classes of things which perish in the using, that the use by which they are consumed may be regarded as a violation of the patent right; and that the party may be held responsible for using, who sells or gives to others to be consumed, the article that is the subject of the patent; because both make use of the invention to the injury of the patentee. In such cases, it matters not whether the party makes the article himself, in violation of a patented process, or procures it to be made by others.

§ 202. Where the subject of a patent is a machine, the using it is altogether prohibited by the statute, because it intends to vest in the patentee the full enjoyment of the fruits of his invention, both in the practice of making the machine, and of producing the effect or result intended to be produced by it.

§ 203. Where an order was given to the defendants by a third person to manufacture a patented article, on a model furnished by him, and the order was executed, it was held that the defendants were guilty of an infringement, although, when they began to execute the order, they had no knowledge of the plaintiff's patent.

§ 204. 3. *An Art.* — Where an art is the subject-matter of a patent, the patent will be infringed by exercising or practising the same art, which will constitute a "using" of the invention or discovery.

§ 205. But the great question that arises, when an infringement is charged to have taken place, is, whether the two things, one of which is said to be an infringement upon the other, are the same, or different. If they are the same, there is an infringement. If they are different, there is not. But what kind and what degree of resemblance constitute

the identity which the patent law considers as an infringement, and what kind and what degree of difference will relieve from this charge, are the difficult and metaphysical questions to be determined in each particular case.

§ 206. Learned judges have often laid it down that where two things are the same in principle, the one is an infringement upon the other. This mode of stating the general doctrine on which the fact of infringement depends is not quite satisfactory, because that which constitutes the principle of an invention is very likely to be regarded differently by different minds. Still, there is a sense in which the principle of an invention is undoubtedly to be considered in determining whether an infringement has taken place; because we cannot determine whether there is a substantial identity between two things, without first observing the distinguishing characteristics of the one which is taken as the subject of comparison. But I propose, without rejecting the light of any of the cases in which this language is employed, to inquire whether the fact of an infringement may not be tried by a test more definite, precise, and practical.

§ 207. An infringement involves substantial identity, whether that identity is described by the terms "same principle," same "mode of operation," or any other. It is a copy of the thing described in the specification of the patentee, either without variation, or with only such variations as are consistent with its being in substance the same thing. What will amount to such a substantial identity cannot be stated in general terms; we can only look to individual cases for illustrations and applications of the general doctrine.

§ 208. If the invention of the patentee be a machine, it will be infringed by a machine which incorporates in its structure and operation the substance of the invention; that is, by an arrangement of mechanism which performs the

same service, or produces the same effect in the same way, or substantially in the same way.

§ 209. But if the difference between the two machines is not a mere difference of form ; if there is a material alteration of structure ; if they are substantially different combinations of mechanism, to effect the same purpose by means which are really not the same in substance, then the one will not be an infringement of the other.

§ 210. But, in cases where a patent is not for a combination, if the principle is applied in the same way as the patentee has applied it, then the absence of two or three things in the defendant's machine, which are mentioned in the specification, will not prevent the patentee from recovering for an infringement. It is in relation to this question of substantial identity that the doctrine of mechanical equivalents becomes practically applicable. This doctrine depends upon the truth that the identity of purpose, and not of form or name, is the true criterion in judging of the similarity or dissimilarity of two pieces of mechanism. The question whether one thing is a mechanical equivalent for another, is a question of fact for the jury, on the testimony of experts, or an inspection of the machines ; and it is an inference to be drawn from all the circumstances of the case, by attending to the consideration, whether the contrivance used by the defendant is used for the same purpose, performs the same duties, or is applicable to the same object, as the contrivance used by the patentee. Hence, two things may be mechanical equivalents for each other under some circumstances, which would not be so under different circumstances. Hence, also, the names as well as the forms of things are of comparatively little importance. The question to be determined is, whether, under a variation of form, or by the use of a thing which bears a different name, the defendant accomplishes, in his machine, the same purpose, object, or

effect, as that accomplished by the patentee ; or whether there is a real change of structure and purpose.

§ 211. If the change introduced by the defendant constitutes a mechanical equivalent, in reference to the means used by the patentee, and besides being such an equivalent, it accomplishes some other advantage beyond the effect or purpose accomplished by the patentee, it will still be an infringement as respects what is covered by the patent, although the further advantage may be a patentable subject as an improvement upon the former invention.

§ 212. Where the subject-matter of the patent is a manufacture, the same test of substantial identity is to be applied. In many cases of this kind, it will not be by varying in form, or in immaterial circumstances, the nature of the article, or the process by which it is produced, that a party can escape the penalties of infringement. The question will be, whether in reality and in substance the defendant has availed himself of the invention of the patentee, in order to make the fabric or article which he has made. If he has taken the same plan and applied it to the same purpose, notwithstanding he may have varied the process of the application, his manufacture will be substantially identical with that of the patentee.

§ 213. But in regard to another class of cases, it not unfrequently happens, that the sole evidence of infringement consists in the similarity of the articles, without any direct evidence of their having been made by the same process. Similarity in appearance and structure will not of itself always establish an infringement ; because the patent, though it covers the manufactured article itself, may be for the process of the manufacture. In such cases, the inference that the same process was used must be drawn from the evidence ; and the similarity of structure of two things

is presumptive evidence of their being made in the same way.

§ 214. In such cases, where the object to be accomplished is open to the public, notwithstanding the patent, provided it can be accomplished in several modes, which, as processes, are substantially different, an infringement must be in respect of the process used by the patentee. But unless it appears that the article itself could be produced by another process, constituting an independent discovery, then an infringement may be proved by the making of the article. The burthen of proof is always on the plaintiff, to show that his process has been infringed ; and, in the absence of direct evidence, the similarity of the effect produced will generally be sufficient to establish an infringement, and if this is aided by evidence of the use of similar apparatus, the presumption of a use of the same process will be still stronger. Or, to state this in other words, where the invention or subject-matter of the patent is a manufacture, it is immaterial by what process it is produced; since the infringement must consist in making the same thing, whether by one process or another. But where the invention or subject-matter is the process of making a particular thing, which may or may not be made by more than one process, the inquiry will be whether it has been made by the use of the process covered by the patent. In such cases, the identity of the manufactured article is, with all the other circumstances, competent evidence, from which the jury are to infer that it was made by the process of the patentee. although there may be cases, where, from the nature of the article, this proof would be less strong, according as it appeared to be possible or probable that the article could be made by more than one process. The burthen of proof of the infringement is upon the plaintiff throughout ; and although it does not appear that the article could be made by another process, the jury must still draw the inference, from the identity of the

manufacture, if that is all the evidence, or from that and the other evidence, that it was made by the patentee's process.

§ 215. But a much more difficult class of cases arises under those patents where the subject-matter is the application of a principle, by means of a process or method, in order to produce a particular effect. We have already had occasion to consider when such an invention or discovery is the proper subject-matter of a patent. We have seen that, under some circumstances, the discovery of a principle may, by application in the arts, be protected by a patent; and we have now to consider how far the proprietor of such a patent may protect himself against the use of the same principle by others; or, in other words, what will constitute an infringement of his right.

§ 216. In this inquiry, the first thing to be attended to is the subject-matter of the patent. A clear idea is to be formed of the object of the patent; and provided the specification properly points out what the claim of the patentee is, it is not material in what form his claim is presented, or whether, in form, the patent purports to be for a process or a manufacture. Wherever the real subject covered by the patent is the application of a principle, in arts or manufactures, the question, on an infringement, will be as to the substantial identity of the principle, and of the application of the principle; and consequently the means, machinery, forms, or modifications of matter, made use of, will be material, only so far as they affect the identity of the application.

§ 217. Thus, in Forsyth's patent, the subject-matter was the use and application of detonating powder as priming, for the explosion of gunpowder; and it was held that whatever the construction of the lock by which the powder was to be discharged, the use of detonating mixture as priming was an

infringement. So, too, where the claim of the patentee was for "the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight and the seat act as a counter balance to the pressure against the back of such chair," it was held that a chair made in any way upon this principle was an infringement. In like manner, where the principle of the invention was the welding of iron tubes by pressure of the edges of the iron, when heated, without the use of a maundrill, or other internal support, it was held that a variation from the plaintiff's mode of applying the pressure, the application of the principle being the same, was still an infringement.

§ 218. Clegg's patent was for the application of a law of natural science respecting the motion of fluids and solids, and the alternate filling and discharging of a vessel of gas, by means of that application; the object being to obtain an instrument for measuring the quantity of gas supplied to the consumer. The scientific witnesses said, that the moment a practical scientific man had got that principle, he could multiply without end the forms in which it could be made to operate. The instrument used by the defendant was different in form and construction from that used by the patentee; but the application of the principle, by means of a varied apparatus, was the same in both; and it was held an infringement.

§ 219. In Neilson's patent, the invention consisted in the application of hot air to the blowing of furnaces, by heating the air between its leaving the blowing apparatus and its introduction into the furnace, in any way, in a close vessel, exposed to the action of heat. The defendant's apparatus for this purpose was confessedly superior to what would be constructed according to the directions in the plaintiff's specification; but it was held to be an infringement.

§ 220. These cases show that when a party has invented some mode of carrying into effect a law of natural science, or a rule of practice, it is the application of that law or rule which constitutes the peculiar feature of his invention ; that he is entitled to protect himself from all other modes of making the same application ; and, consequently, that every question of infringement will present the question, whether the different mode, be it better or worse, is in substance an application of the same principle. The substantial identity, therefore, that is to be looked to, in cases of this kind, respects that which constitutes the essence of the invention, viz., the application of the principle. If the mode of carrying the same principle into effect, adopted by the defendant, still shows only that the principle admits of the same application in a variety of forms, or by a variety of apparatus, the jury will be authorized to treat such mode as a piracy of the original invention. But, of course, where the variations adopted by the defendant show that the application of the principle is varied, that some other law or rule of science, or of practice, is made to take the place of that which the patentee claims as the essence of his invention, then there will be no infringement, but a substantial invention.

§ 221. And this brings us to the consideration of another test of the fact of infringement, viz., that which shows on the part of the defendant a substantive invention sufficient to support a patent, as for a new thing.

§ 222. There may be many different modes of obtaining the same object, and, consequently, if, after a patent has been obtained for a particular thing, another party, without borrowing from that patent, has invented a new mode of accomplishing the same object, he will be entitled to a patent for his discovery. The fact that a party is entitled to a patent for a substantive invention, becomes a test of his

infringement of a prior patent in this way. He cannot have become entitled to a patent without the invention of something material and new, that goes to the essence and substance of the subject-matter. If what he has done is only to make a variation in certain particulars, which do not affect the principle of the invention, the subject-matter remains the same, notwithstanding such variation. But if he has produced a new subject-matter, whether it be in the mode of accomplishing a common object, or in the object itself, he has not infringed upon the subject-matter of another which was materially and essentially different.

§ 223. The application of this test is seen in a striking manner in the facts of a recent English case. 'The plaintiff had obtained a patent for "an invention of improvements in cards, for carding wool, cotton, silk, and other fibrous substances, and for raising the pile of woollen cloths." In his specification, he stated his invention to consist in "the application and adaptation of caoutchouc or India rubber as a substitute for the fillets or sheets of leather that were commonly used in the construction of ordinary cards, and thus giving a superior elasticity and durability to cards;" and, in describing the mode of preparing the article, stated that "the regularity of distance and uniformity of the dents or teeth of the cards were found to be better preserved by a piece of linen commonly called brown holland, or other like cloth, well glazed and cemented on to the back of the caoutchouc or India rubber;" that "the cloth so placed rendered the action of the dents or teeth less uncertain in their elastic movements; that the cloth so cemented to the India rubber or caoutchouc was to be affixed to the cylinder or board of the ordinary carding engine by nails; but if it was to be affixed by cementing, (which he recommended as the best mode of applying the cards,) then it was desirable to remove the cloth;" and he then proceeded to show the ordinary mode of pricking or piercing holes for the reception of the dents or

teeth, the mode of cutting the India rubber, &c. The defendants subsequently obtained a patent also for "an improvement or improvements in cards for carding various fibrous substances, part of which improvements may be used as a substitute for leather;" and in their specification they stated their invention to consist in the manufacture of a new material or substance for receiving the wire teeth, which they described to be a woven fabric of a peculiar construction, soft and porous, saturated with a solution of India rubber by being repeatedly passed through it, and then dried and submitted to pressure; the object being to render the fabric so dealt with "extremely elastic in the direction of the thickness of the fabric, so as to impart, as it were, elasticity to the wire teeth when set."

§ 224. The question as to the infringement was, whether the defendants had added anything material, not covered by the plaintiff's patent, which could be considered as constituting a subject-matter distinct from that of the plaintiffs. It appeared that the difference between the article manufactured under the plaintiff's patent, and that under the defendant's patent, which was complained of as an infringement, was, that in the former the caoutchouc or India rubber was cemented in slices cut from the solid block to linen cloth, or cloth made of linen and cotton, in the manner described in the plaintiff's specification, and that the latter consisted of cloth of a peculiar fabric saturated or impregnated by passing it through a liquid composed of caoutchouc or India rubber dissolved in naphtha or oil of turpentine and highly rectified coal tar oil, and afterwards drying and submitting it to pressure. The plaintiff's evidence tended to show that the article made by the defendants was a colorable imitation of that made under the plaintiff's patent; the cloth being merely placed in the centre between two strata of India rubber or caoutchouc, instead of at the back, and the India rubber, though applied in solution or in the form of a cement,

being capable of being reproduced by evaporation of the solvent, and the principle and the result of both methods being the same, viz., the acquisition of an increased elasticity, though the modes of attaining that result were somewhat different. It was also sworn, that, for the purpose of the plaintiff's patent, caoutchouc or India rubber might be used either in the state in which it is imported, or in a manufactured state, that is, dissolved by certain known solvents, and afterwards, by evaporation of the solvents, restored to solid blocks; but that, if free from air-holes, (in which state it was *possible* to obtain it,) it was more desirable to have it in its natural state, its elasticity being somewhat diminished by the artificial process.

§ 225. On the part of the defendants, several witnesses, as well practical as scientific, were called, who stated that the principle of the manufactures respectively described in the specifications of the plaintiff and defendants was essentially different, as well in the materials used and the mode in which they were put together, as in the operation or result of their combination; the one process being wholly mechanical, the other strictly chemical, and the effect of the former being to give *elasticity*, and of the latter to give strength and *flexibility* or *pliancy*, but imparting only a very slight additional elasticity to the card: that the proportion which the India rubber bore to the cloth as used by the plaintiff was generally about three to one, whereas the proportion of India rubber solution used by the defendants was from twenty to forty per cent. only; and that India rubber as imported was wholly unfit for the purpose described in the plaintiff's specification, never being sufficiently free from imperfection.

§ 226. Upon the issue of not guilty, the jury found a verdict for the plaintiff, thereby establishing that the defendant's card was an infringement of the plaintiff's, both employing the elasticity of caoutchouc next the teeth, and

the defendant's practising by a circuitous mode that which falls within the claim of the plaintiff's patent.

§ 227. But, if the defendants, in this case, could have succeeded in showing that the materials of which they made their cards, and the mode in which they were put together, were different from the materials and method of construction used by the plaintiff; if they could have satisfied the jury that the difference expressed by saying that the one process was mechanical and the other chemical was a real and substantial, and not a colorable, difference; then they would, notwithstanding the former patent of the plaintiff, and notwithstanding that the objects of both were the same, have appeared to be the authors of a substantive invention, because they would have produced a distinct subject-matter, new in all material respects, of a useful character, and, therefore, capable of supporting an independent patent. But it appeared that the plaintiff's patent covered the use of India rubber combined with cloth, as a fillet or sheet, for the backs of cards, in which to insert the teeth, in order to accomplish certain purposes; and that the mode in which the defendants brought these same materials into combination, for the same purposes, was only a circuitous mode of doing what the plaintiff had done, and therefore that they had produced nothing new, material to the principle and substance of the invention.

§ 228. On the other hand, where the plaintiff had a patent for producing an effect in the manufacture of iron, said to be altogether new, by a mode or process, or series of processes unknown before, it being for a combination of processes altogether new, leading to one end; and the defendants had used the same ingredients, but in different proportions, which constituted a mode of working essentially different from that pointed out in the specification, it was held that there was no infringement. The plaintiff's invention in this case

consisted in rendering available the slags or cinders produced in the manufacture of iron; and also in the use and application of lime, subsequent to the blast furnace, in order to prevent the quality called "cold short;" and his specification pointed out the proportion of slags, mine rubbish, coke and limestone, to be used for the production of the effect. To prove the infringement, a witness in the employ of the defendants was called, who stated that he had seen the plaintiff's specification; that since the date of the patent the defendants preserved cinders, which they had not done before, and produced pig-iron, by mixing them with mine rubbish, and that in the subsequent processes they applied quick-lime to prevent the iron from being "cold short." But he stated that the defendants did not work by the plaintiff's specification, but used very different proportions, viz., lime in the refinery furnace in about the proportion of one hundred and twentieth part to the whole charge of pig-iron, and that they used none in the puddling furnace, and that the defendants had used slags in the puddling furnace for years before the date of the patent. He also proved that the proportions of mine rubbish, as laid down in the specification, were not essential to the success of the process; that the defendants had been in the habit of varying those proportions, and that they once entirely omitted mine rubbish, when the result was most successful.

§ 229. Now, this patent was one of that class in which proportions or degrees, when specified as the mode in which a particular effect is to be produced, make a part of the essence of the invention. A discovery may consist in the effect produced by the union of certain ingredients or agents: but if a particular proportion is supposed to be necessary to the effect, and is claimed as entering into the production of that effect, the subject-matter of the patent will be the use of the particular ingredients in that particular proportion; and if the same ingredients in different proportions, or a part

of the same ingredients in other proportions, are used by another person to produce a similar beneficial effect, more or less advantageous, that person will have discovered a new subject-matter, and consequently will not have infringed the right of a patentee whose invention depends on the proportions which he has specified. Accordingly, it was held in this case that, the defendants' mode of working being essentially different from the specification of the plaintiff, they had not infringed his patent; and if we apply to the reasoning of the court the test of a sufficiency of invention on the part of the defendants to support a patent, as for a new discovery, it will be seen that the same facts will lead to that result, which show that the plaintiff's patent had not been infringed.

§ 230. The superior utility of one thing over another will sometimes furnish an important test upon this question of identity. It is not always true that one machine, for instance, is not an infringement upon another, because it is better than the other; for it may contain the whole substance of that other machine, and something in addition which makes it better; or the patent may have been taken for an entire machine, substantially new in its structure, and the machine complained of may contain some substantial operating part of the machine patented, and so infringe. But where the patent is for some one operating part of a machine, designed to effect a particular end, and the machine complained of effects that end materially better, by the use of means which are in point of fact different, then the two modes of operation are not the same under the patent law. In other words, when the means employed are, in point of fact, not the same, or a known mechanical equivalent, and the question to be determined is, whether they are, under the patent law, the same in substance, or, as it is usually called, the same in principle, superior utility settles that question. Two things are not the same under the patent law, when one is practically substantially better than the other, and

this improvement is not gained by the use of known mechanical equivalents.

§ 231. This view of the patent law relieves it in a great degree from the uncertainties which have arisen from the loose and indeterminate sense in which the word "principle" has been employed; and, at the same time, it is in exact accordance with the great purposes, as well as with the particular provisions, of that system of law. Its leading purpose was to encourage *useful* inventions. Practical utility was its object; and it would be strange, if, with such object in view, it should consider two things as substantially the same, which, practically and in reference to their respective utility, are substantially different. And although this test has not seldom been lost sight of, in the trial of patent causes, yet there is nowhere any authority opposed to it, and there is certainly much in its favor.

§ 232. Every patent stands upon its subject-matter, and accordingly the question of infringement depends upon the use of that which is covered by the patent. A patent may be for a new combination, whether the particular parts or things constituting that combination be new or old. But where the patent is for a combination, and not for several and distinct improvements, it is no infringement to use any of the parts or things which go to make up the combination, if the combination itself be not used.

§ 233. But, on the other hand, where the patent is for several distinct improvements or things, and does not stand upon the combination of such things, then the use of any one of them will be an infringement. But in order to succeed in an action for the infringement of any one of such improvements, it was formerly necessary with us, as in England, that the whole of the improvements claimed as such should be new; and if the novelty of any one of them

failed, though it might not be the one used by the defendant, the action could not be sustained. The reason for this was, not that the right of the patentee would not have been infringed, if he had had a valid patent, but that his patent was void, on account of a partial failure of the whole consideration on which it was granted; the consideration on which a patent was granted being the novelty of all the things represented to be new, regarded as an entirety; and the consideration being entire, if it failed in part, it failed as to the whole. The government was, in such a case, deceived in its grant; the whole patent was therefore inoperative, and no action could be maintained upon it.

§ 234. The statute of July 4, 1836, § 15, recognizes this doctrine, by establishing as a defence that the patentee was not the first inventor of the thing patented, "or of a substantial and material part thereof claimed as new." But a more recent statute has provided that "the patent shall be deemed good and valid for so much of the invention or discovery as shall be truly and *bonâ fide* the invention or discovery of the patentee, if it is a material and substantial part of the thing patented, and is definitely distinguishable from the other parts which the patentee had no right to claim, notwithstanding the specification may be too broad, if it was so made by mistake, accident or inadvertence, and without any wilful default, or intent to defraud or mislead the public." This leaves the former doctrine, by which a failure of novelty in any part vitiated the whole patent, still applicable to cases where the claim was made too broad, wilfully and knowingly, or with intent to defraud or deceive the public.

§ 235. The effect of a failure, in point of utility of one or more of several parts or things claimed as distinct inventions, is held in England to be the same as a failure in point of novelty. If anything claimed as essential turn out to be

useless, the patent is voidable, provided it was known to the patentee, at the time of enrolling his specification, to be useless, because he misleads the public by representing it to be useful; but if it was subsequently discovered not to be useful, material, or necessary, it forms no ground of objection to the patent. A patent for an entire machine, or other subject which is, taken altogether, useful, though a part or parts may be useless, will be valid, provided there is no false suggestion. So, too, a finding of the jury, that the invention is useful on the whole, but fails or is not useful in some cases, is not a ground of nonsuit. But these cases are entirely distinguished from those where the purpose wholly fails, and the invention described does not accomplish the effect that is claimed for it. On a patent of this description, of course, no action whatever can be maintained.

§ 236. The principles of our law would apparently lead to the same conclusions upon this subject; for although it is not material whether the subject-matter of a patent is more or less useful, it must possess some utility; and if the subject-matter consists of several things, all included in one patent, but claimed as the distinct inventions of the patentee, a failure of any one of them, in point of utility, must vitiate the patent, if it was represented to be useful, when it was known not to be so, for the same reasons which are applicable in England. Our statute, moreover, has expressly provided, as one of the defences to an action on a patent, "that it contains more than is necessary to produce the described effect," when such addition "shall fully appear to have been made for the purpose of deceiving the public;" that is to say, when it appears that the patentee was aware that he was introducing something not useful, material, or necessary, at the time of preparing his specification.

§ 237. The rule of damages for the infringement of a patent is provided by statute in the following terms: "that,

whenever in any action for damages for using or selling the thing whereof the exclusive right is secured by any patent heretofore granted, or which shall hereafter be granted, a verdict shall be rendered for the plaintiff in such action, it shall be in the power of the court to render judgment for any sum above the amount found by such verdict as the actual damages sustained by the plaintiff, not exceeding three times the amount thereof, according to the circumstances of the case." By the terms "actual damages, sustained by the plaintiff," are meant such damages as he can actually prove, and has in fact sustained, as contra-distinguished from mere imaginary or vindictive damages, which are sometimes given in personal torts. These damages will be trebled by the court, according to the statute.

§ 238. In estimating the "actual damage," the rule is, in cases of infringement by an actual use of the plaintiff's invention, — as by making and using a patented machine, — to give the value of such use during the time of the illegal user, — that is to say, the amount of profits actually received by the defendant. To this, it seems, there should also be added all the losses to which the plaintiff has been subjected by the piracy.

§ 239. But where merely the making of a patented machine is proved, as no actual damages have been sustained, nominal damages only should be given.

§ 240. Where patented articles (cast-iron water-wheels) were manufactured by the defendants on an order given by a third person, and the order was partially executed before the defendants had notice of the patent, and two wheels only were cast after notice, it was held that nominal damages only were proper.

§ 241. It was formerly doubted, whether the jury were

at liberty to allow, as part of the actual damage, the counsel fees and expenses of witnesses beyond the taxable costs, incurred by the plaintiff in vindicating his right. But it is now the established rule and practice to allow them.

§ 242. As to the time of the acts complained of as amounting to an infringement, it is obvious that the patent cannot be infringed by anything done when the patent did not exist; and therefore it is no infringement to make or use a machine subsequently patented, or otherwise to practise the invention which is afterwards made the subject of a patent, before the patent is obtained. But when a patent is granted, the right in the subject-matter relates back to the time of the invention, so that the party who has practised the invention between the time of the discovery and the issuing of the patent must cease to do so. Any acts of infringement done after the issuing of the patent will be ground for the recovery of damages, although the previous acts were done at a time when it was uncertain whether there would be any patent issued. The same is true of acts done in violation of a patent which is surrendered and renewed on account of defects in the specification. If a party erect and put in use a patented machine during the existence of a defective patent which is afterwards surrendered, it will be an infringement of the new and renewed patent, if he continues the use of such machine after the renewal; and it seems that no notice of the renewal is necessary; and if it is, that knowledge of the original patent will be notice of the renewed patent granted in continuation of it, according to the provisions and principles of law.

§ 243. A patentee may recover damages for an infringement during the time which intervened between the destruction of the Patent Office by fire, in 1836, and the restoration of the records under the act of March 3, 1837.

CHAPTER II.

OF THE REMEDY FOR AN INFRINGEMENT BY ACTION AT LAW.

§ 244. THE Act of Congress of July 4, 1836, c. 357, § 14, provides that damages may be recovered for an infringement by "an action on the case"; a remedy which exists equally at common law for the violation of the right secured by letters-patent.

§ 245. I. *Parties.* The statute also provides that "the action shall be brought in the name or names of the person or persons interested, whether as patentee, assignees or as grantees of the exclusive right within and throughout a specified part of the United States."

§ 246. Formerly, the grantee for a particular district could not bring an action on the patent in his own name. But the statute has made him a party interested in the patent, and consequently, in his own district, he may sue in his own name.

§ 247. Where the patentee has assigned his whole interest, either before or after the patent was taken out, the action can only be brought in the name of the assignee; but where the assignment is of an undivided part of the interest, the action should be brought in the joint names of the patentee and the assignee, as representing the whole interest. If the assignment has not been made, but has been merely agreed to be made, the action should be in the name of the patentee, the assignee not having the interest until the assignment has been made and recorded. But it may be recorded at

any time after the suit is brought and before trial. An action for an infringement may be maintained against a corporation.

§ 248. The Supreme Court of the United States have held that a covenant by a patentee, made prior to the law authorizing extensions, that the covenantee should have the benefit of any improvement in the machinery, or alteration or renewal of the patent, did not include the extension by an administrator under the act of 1836; that it must be construed to include only renewals obtained upon the surrender of a patent on account of a defective specification, and, therefore, that a plaintiff who claimed under an assignment from the administrator could maintain a suit against a person who claimed under the covenant.

§ 249. II. *The Declaration.* The declaration, in an action for the infringement of a patent, should show a title in the plaintiff, with convenient certainty; and should set forth all the matters which are of the essence. Without these allegations, the plaintiff fails to show a right in point of law to ask the court for judgment in his favor. The several parts of the declaration may here be considered, in the order in which they occur in pleading.

§ 250. The declaration should commence with a recital that the plaintiff was "the original and first inventor" of the subject-matter, the making, using, or vending of which is complained of. This averment is necessary, notwithstanding the letters-patent, afterwards referred to, recite that the plaintiff has alleged that he was the original and first inventor, because it must appear affirmatively, in point of fact, at the trial, that he was so, and the letters-patent can only be resorted to as *prima facie* evidence of the fact. There must, therefore, be a distinct allegation of the fact, as one of the things essential to the plaintiff's title.

§ 251. For the same reason, the declaration goes on to aver that the subject-matter was "new and useful," "not known or used before the plaintiff's invention or discovery," and "not at the time of his application for a patent in public use or on sale with his consent or allowance."

§ 252. Whether it is necessary to aver the citizenship of the patentee has never been determined. In practice it is generally done, and it is safer to do so than to omit an averment which might on demurrer be held to be essential. But it is absolutely necessary to aver that the plaintiff, being the original and first inventor, obtained letters-patent for his invention, in due form of law, under the seal of the patent office, signed by the Secretary of State, and countersigned by the Commissioner of Patents.

§ 253. The substance of the grant should then be set forth; that is to say, that the letters-patent secured to the plaintiff, his heirs, administrators, &c., for the term of fourteen years, the full and exclusive right of practising the invention; which should be described briefly, as it is set forth in the letters-patent, of which profert should be made. Where the declaration describes the plaintiff's invention in the words of the patent, it is not necessary that the description, as stated in the specification, should be set forth. If the defendant require the specification in his defence, he may have it placed on the record by praying oyer of it.

§ 254. The declaration is concluded by an averment of the value of the patent right and of the breach by the defendant, and the damages sustained by the plaintiff.

§ 255. If the plaintiff sues in the character of assignee of the patent, he must set forth both the patentee's title and his own, and should aver that the assignments were duly recorded in the patent office. If the declaration omit to state that the

assignments were recorded, the omission will be cured by verdict, if the general terms of the declaration are otherwise sufficient to have authorized the admission of proof of the recording at the trial; upon the general principle, that, after verdict, all the facts necessary to have been proved to enable the jury to find a verdict for the plaintiff will be presumed to have been proved, if the general terms of the declaration would have let them in.

§ 256. At the trial, proof may be given of the recording of an assignment, either before or after the action was brought.

§ 257. III. *Pleadings and Defences.* The fifteenth section of the Act of 1836 provides that the defendant, in any action for the infringement of a patent, shall be permitted to plead the general issue, and to give the statute and any special matter in evidence, of which notice in writing may have been given to the plaintiff or his attorney, thirty days before trial, tending to prove that the description and specification of the patent does not contain the whole truth relative to the invention or discovery, or that it contains more than is necessary to produce the described effect; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public; or that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new, or that it has been described in some public work anterior to the supposed discovery by the patentee, or had been in public use, or on sale, with his consent or allowance, before his application for a patent, or that he had surreptitiously or unjustly obtained a patent for that which was in fact invented or discovered by another, who was using reasonable diligence in adapting and perfecting the same; or that the patentee, if an alien at the time the patent was granted, had failed and neglected, for the space of eighteen months from the date of the patent, to put and continue on

sale to the public, on reasonable terms, the invention or discovery for which the patent issued ; in either of which cases judgment is to be rendered for the defendant, with costs.

§ 258. The object of this provision was to enable the defendant to give certain special matters in evidence under the plea of the general issue. It seems to have been generally supposed, at a very early period in the history of our legislation, that under a plea of the general issue, the defendant could not be allowed to attack the validity of the patent, and that that plea only put in issue the question of infringement. Accordingly, the Act of 1793, § 6, enumerated certain special defences, which it declared the defendant "shall be permitted" to give in evidence under the general issue, by first giving notice thereof to the plaintiff. The Supreme Court of the United States construed the provision as intended to relieve the defendant from what were supposed to be the difficulties of pleading, by allowing him to give in evidence, under the plea of not guilty, certain matters affecting the patent, providing, at the same time, for the security of the plaintiff against surprise, by requiring notice to be given of the special matter to be relied on. This notice was substituted for a special plea. The court also declared that the defendant was not obliged to pursue this course. He might plead specially, in which case the plea would be the only notice the defendant could claim ; or he might plead the general issue, in which case he must give notice of the special matter on which he relied.

§ 259. The fifteenth section of the Act of 1836 is taken, with some additional defences, from the sixth section of the Act of 1793, and has the same object in view. It differs from the former act, by omitting the provision that the patent "shall be declared void" if judgment is rendered for the defendant, and by providing that "when the defendant relies

in his defence on the fact of a previous invention, knowledge, or use of the thing patented, he shall state in his notice of special matter the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same thing had been used." This provision was added in consequence of the construction given to the former act, to the effect that notice of the places was not necessary to be given. In other respects, the construction given to the Act of 1793, § 6, is applicable to the present law. The defendant is at liberty to plead specially, in which form of pleading he need give no other notice of his defence than the plea itself gives, or he may plead the general issue, and give notice of the special matter on which he relies. The statute does not undertake to enumerate all the defences which may be made to an action on a patent. It provides that when certain facts, which it enumerates, are to be relied on, and the general issue is pleaded, the defendant shall give notice of the facts which he means to put in evidence. The notice must be strictly construed; if the defendant gives notice that he will prove the prior use of the invention in the United States, he cannot be allowed to offer evidence of its prior use in England.

§ 260. But it will be useful to make a particular enumeration of the defences that may be made under the general issue, without notice, before we turn our attention to those mentioned in the statute, of which notice must be given, when the general issue is pleaded.

§ 261. The defendant may show, under the general issue, without notice, that he never did the act complained of, that is, that he has not infringed the patent, or that he was acting under a license or purchase from the plaintiff. He may show that the plaintiff is an alien, not entitled to a patent; or that the plaintiff has not a good title as assignee;

or that his patent was not duly issued according to law, in respect of the signatures of the public officers, or of the public seal, &c.

§ 262. He may also show that the invention is not a patentable subject; that is to say, admitting its novelty, he may show that it is not an "art, machine, manufacture, or composition of matter," in the sense of the statute. But the defence that the subject is not patentable on the ground of want of novelty, falls under the statute, and must be specified.

§ 263. In like manner, the defendant may show, under the general issue, without notice, that the invention, though new, fails in point of utility, and is worthless and frivolous.

§ 264. So, too, he may show that there is no specification, or that the specification is so ambiguous and unintelligible that the court cannot determine from it what the invention is that is intended to be patented. This is a different issue from that pointed out in the statute. If the specification do not describe the invention in clear and exact terms, so as to distinguish it from other inventions, but is so ambiguous and obscure that it cannot be ascertained with reasonable certainty for what the patent is taken, or what it includes, the patent is void for ambiguity; and this is put in issue by the plea of not guilty, because a clear and distinct specification of the invention is essential to the validity of the patent. But if the invention is definitely described in the patent and specification, so as to distinguish it from other inventions before known, there may still exist the defect described in the fifteenth section of the statute, of some concealment or addition made for the purpose of deceiving the public; and when it is intended to show this, under the general issue, notice must be given.

§ 265. We now come to the special defences enumerated

in the fifteenth section of the statute. The statute provides that the defendant may, under the general issue, give the statute itself in evidence, and certain special matters, of which he shall have given notice in writing to the plaintiff or his attorney thirty days before trial.

§ 266. The first of these special defences is, "that the description and specification filed by the plaintiff does not contain the whole truth relative to his invention or discovery, or that it contains more than is necessary to produce the described effect; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public." We have already seen what was the general purpose of Congress in providing that notice should be given, when certain facts were to be offered in evidence; but it is not very easy to define the scope of the issue intended by the above provision, or to distinguish the exact meaning of the statute in this particular. It is clear, however, that this issue, as we have already suggested, is distinguishable from the issue which presents the naked question whether there is an intelligible description of the invention, which will enable the public to know what it is. It may help us to understand the present provision, if we review the corresponding provision in the former Act, and the decisions made upon it.

§ 267. The corresponding provision in the Act of 1793, § 6, was in the same terms, but that act also provided that when judgment on this issue had been rendered for the defendant, "the patent shall be declared void;" which is omitted in the Act of 1836, § 15. In one of the earliest reported cases in which this clause of the statute of 1793 came under consideration, it was held that if the invention is definitely described in the patent and specification, so as to distinguish it from other inventions before known, the patent is good, although it does not describe the invention

in such full, clear, and exact terms, that a person skilled in the art or science of which it is a branch would construct or make the thing, *unless such defective description or concealment was with intent to deceive the public.* The reasoning of the court, in this case, tends to show that they considered the defect or concealment, with intent to deceive the public, to refer to the practicability of practising the invention from the specification; and in a subsequent case they seem to consider that the statute intended to alter the common law, and to declare the patent void, only when the concealment or defect was with such an intent. But it is not quite clear, whether they considered that the issue raised by an allegation that the specification would not enable a workman to make the thing described, is, as a defence to the action, not one of the special defences of the statute, and consequently that it is raised by the plea of not guilty, without notice.

§ 268. In a subsequent case, the Supreme Court of the United States decided that in order to justify a judgment declaring a patent void, the defect or concealment must appear to have been made for the purpose of deceiving the public; but if the defendant merely seeks to defend himself, he may do so by showing that the patentee has failed in any of the pre-requisites on which the authority to issue a patent depends. This decision made the evidence of fraudulent intent requisite only in the particular case and for the particular purpose of having the patent declared void.

§ 269. Now, the statute of 1836 omits the provision that the patent shall be declared void, when judgment is rendered for the defendant, and it leaves the ground of a concealment or addition in the specification, with intent to deceive the public, simply a defence to the action, of a special nature. There can be no doubt, therefore, that when the defendant proposes to show that the specification contains more or less

than a true description of the invention, and that the concealment or addition was made for the purpose of deceiving the public, his plea must either be special, setting forth the defects and charging the intent, or it must be the general issue, accompanied by notice of the defects in the specification intended to be relied on. But I do not conceive that the statute means to say that no concealment or defect in a specification shall be available as a defence to the action, under the general issue, unless it was made with intent to deceive the public. The statute may be construed as if it read thus: "Whenever the defendant seeks to show that the specification does not contain the whole truth relative to the invention or discovery, or that it contains more than is necessary to produce the described effect, and that such concealment or addition was made for the purpose of deceiving the public, he may plead the general issue, and give such special matter in evidence, provided he shall have given notice," &c. On the other hand, if the defendant relies on a failure in the specification in respect of any of the prerequisites for issuing a patent, he may show such failure, under a plea of the general issue, without any notice.

§ 270. The next special defence mentioned in the statute is, in substance, that the subject-matter is not new; that is, "that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof, claimed as new; or that it had been described in some public work, anterior to the supposed discovery thereof by the patentee."

§ 271. We have seen, in a former chapter of this work, when a party is or is not the original and first inventor of a patented subject; and also that a failure, in point of novelty, of any substantial and material part of the alleged invention, renders the patent void *pro tanto*. In order to ensure the plaintiff against surprise, whenever this defence is to be

resorted to, the same section of the statute requires that the defendant "shall state, in his notice of special matter, the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same had been used." This provision must be strictly complied with.

§ 272. It is also fairly to be inferred, from the requisition, that notice shall be given of "any special matter" intended to be offered in evidence "tending to prove" the particular defence relied upon, that the notice must describe whether the whole, or a part, and what part, of the invention is to be charged with want of novelty, and in what public work, or works, the whole, or a part, or what part, had been described before the supposed discovery by the patentee. There is no limitation of time within which this defence must be set up.

§ 273. The stringent effect of this defence has been materially modified, however, by two other provisions. The first is contained in the two provisions which are found at the end of the same fifteenth section of the Act of 1836; "provided that whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be held to be void, on account of the invention or discovery, or any part thereof, having been before known or used in any foreign country, it not appearing that the same, or any substantial part thereof, had before been patented or described in any printed publication; *and, provided also*, that whenever the plaintiff shall fail to sustain his action, on the ground that in his specification of claim is embraced more than that of which he was the first inventor, if it shall appear that the defendant had used or violated any part of the invention justly and truly specified, and claimed as new, it shall be in the power of the court to adjudge and award, as to costs, as may appear to be just and equitable."

§ 274. The other provision is contained in the Act of March 3, 1837, § 7, 9, in relation to a disclaimer. The seventh section enacts as follows: "That, whenever any patentee shall have, through inadvertence, accident, or mistake, made his specification of claim too broad, claiming more than that of which he was the original or first inventor, some material and substantial part of the thing patented, being truly and justly his own, any such patentee, his administrators, executors, and assigns, whether of the whole or of a sectional interest therein, may make disclaimer of such parts of the thing patented as the disclaimant shall not claim to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; which disclaimer shall be in writing, attested by one or more witnesses, and recorded in the Patent Office, on payment by the person disclaiming, in manner as other patent duties are required by law to be paid, of the sum of ten dollars. And such disclaimer shall thereafter be taken and considered as part of the original specification, to the extent of the interest which shall be possessed in the patent or right secured thereby, by the disclaimant, and by those claiming by or under him subsequent to the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing the same."

§ 275. The ninth section is as follows: "Be it further enacted, anything in the fifteenth section of the act to which this is additional to the contrary, notwithstanding, that, whenever by mistake, accident, or inadvertence, and without any wilful default, or intent to defraud or mislead the public, any patentee shall have in his specification claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the first and original inventor, and shall have no legal or just right to claim the same, in every such case the patent shall

be deemed good and valid for so much of the invention or discovery as shall be truly and *bonâ fide* his own: *Provided*, it shall be a material and substantial part of the thing patented, and be definitely distinguishable from the other parts so claimed without right as aforesaid. And every such patentee, his executors, administrators, and assigns, whether of the whole or a sectional interest therein, shall be entitled to maintain a suit at law or in equity, on such patent for any infringement of such part of the invention or discovery as shall be *bonâ fide* his own as aforesaid, notwithstanding the specification may embrace more than he shall have any legal right to claim. But, in every such case in which a judgment or verdict shall be rendered for the plaintiff, he shall not be entitled to recover costs against the defendant, unless he shall have entered at the Patent Office, prior to the commencement of the suit, a disclaimer of all that part of the thing patented which was so claimed without right; *Provided, however*, that no person bringing any such suit shall be entitled to the benefit of the provisions contained in this section, who shall have unreasonably neglected or delayed to enter at the Patent Office a disclaimer, as aforesaid."

§ 276. The result of these various enactments is, that for so much of the invention as has been described in some public work anterior to the supposed discovery by the patentee, whether the description was known to him in point of fact, or not, — if it be a substantial and material part of the thing invented, and be claimed as new, — and for so much as had been previously patented, the patent is inoperative. But the mere previous knowledge or use of the thing in a foreign country will not defeat a patent here, issued to an original inventor, provided it had not been previously patented or described in a printed publication.

§ 277. It will be observed, that the same statute uses

different phraseology in describing the kind of publication which is to have this effect. In the body of the 15th section of the Act of 1836, it is declared to be a description in "some public work;" and in the proviso of the same section it is declared to be "any printed publication." This renders it somewhat doubtful, as to what kind of publication is intended. The phrase "some public work" would seem to point to a class of regular established publications, or to some book publicly printed and circulated, so as to be open to the public; while the phrase "any printed publication" is broad enough to include any description printed in any form, and published or circulated to any extent, and in any manner. Taking the whole section together, however, and looking to the apparent policy of the statute, it is probable that the intention of Congress was, to make it a conclusive presumption that the patentee had seen any printed description of the thing, which had been so printed and published as to be accessible to the public; but not to adopt that presumption in cases of printed descriptions published and circulated in such a manner as not to be accessible either to the public or to him. If the presumption were adopted in cases of the latter class of publications, an original and meritorious inventor might be defeated of his patent, by showing that the thing had, in a foreign country, been privately described in a printed paper published to a single individual; which certainly would not be a description in a "public work," although it would be a description in a "printed publication." When it is considered that the statute excepts cases even where the thing had been known or used abroad, provided it had not been patented, or described in any printed publication, it seems reasonable to suppose that the publication intended is one to which the public could have access; and this construction is fortified by the consideration that the defence enacted in this section, to which the proviso establishes the exception, is, that the thing had been described in "some public work."

§ 278. If this be so, it would seem to be a question for the jury, under all the circumstances under which the publication has taken place, to determine whether the description was so printed and published as to be accessible to the public, where the publication took place. If it was so accessible, the presumption is against the patentee, and his patent will be defeated, notwithstanding he may not have seen it; because the description was already in the possession of the public.

§ 279. What, then, constitutes a "description?" No judicial construction has yet been given to this term. It can scarcely be supposed, however, that a mere suggestion of the possibility of constructing the machine, or other thing, which may have been subsequently patented, is what the statute intends. The reason why the statute adopts the presumption of knowledge, on the part of the subsequent patentee, is, that a knowledge of the thing was already in the possession of the public. It makes knowledge and the means of knowledge, on the part of the public, the same thing; and, acting upon this principle, it holds that the public have acquired nothing from the specification of the patentee which they did not possess before, and that the patentee has invented nothing which he, as one of the public, could not have derived from the means of knowledge which the public before possessed. Hence it is, that the production of a prior description, which was in the possession of the public, negatives the title of the patentee as the first inventor. But it follows necessarily, from this view of the principle on which the law proceeds, that the description must be such as to give the public the means of knowledge, or, in other words, must of itself enable the public to practise the invention. It is not necessary that the invention should have been reduced to practice; but unless the description would enable the public, without further invention, to put the thing in practice, it cannot be said that

a knowledge of that thing is in the possession of the public. Accordingly, it has been laid down by two eminent writers on the patent law, that the description which is to have the effect of defeating a subsequent patent ought to approach the character, and in some degree to answer the purposes, of a specification, by serving as a direction for making, doing, or practising the thing which is the subject of the patent. But mere speculations or suggestions of an experimental kind, not stated in such a way as to serve for a practical direction, are entirely analogous in their character to abortive and unsuccessful experiments in practice. The Marquis of Worcester's Century of Inventions contained many hints and speculations, on which subsequent inventors have acted; but as they were the mere speculations of an ingenious man, not reduced by him to practice, and not so stated that the statement would answer for a rule of working, without the exercise of invention on the part of the public, they have not been held to have defeated the patents to which they gave rise.

§ 280. The defendant, therefore,—to return to the consideration of this defence,—who gives notice of the statute defence of want of novelty, will not be defeated in it, if he proves a material part of the invention to have been known or used before the discovery by the patentee, provided he shows that the specification was made broader than the real discovery of the plaintiff, with “wilful default or intent to defraud or mislead the public.” But if it was made broader than the real discovery through accident or inadvertence, the patent will still be good, and an action may be maintained for so much of the invention or discovery as is *bonâ fide* the invention or discovery of the patentee, provided it is a material and substantial part of the thing patented, and is definitely distinguishable from the other part which the patentee had no right to claim; unless there has been an unreasonable neglect or delay to file the disclaimer. No costs,

however, can be recovered in such an action, unless the plaintiff, before bringing his action, has filed in the Patent Office a disclaimer of all that part of the thing patented which his original specification should not have claimed. If the disclaimer is filed before the action is brought, but the entry of it at the Patent Office has been unreasonably neglected or delayed, the defence of a want of novelty in any material respect, from whatever cause the defect in the original specification arose, will be admitted as a bar to the action ; and the question of unreasonable neglect or delay will be a question of law for the court.

§ 281. Of course, a defence which goes to the originality of a material and substantial part of the thing patented, the essence of the plaintiff's invention, as is most frequently the case, will not be affected by these provisions.

§ 282. Care is to be taken, therefore, in framing this defence, to ascertain, in the first place, whether the whole or only a part of the substance of the thing patented is open to the objection of prior use or knowledge ; and, in the second place, whether a disclaimer has been filed. If a disclaimer has been filed in reasonable time, the defence of a want of novelty that goes only to a part of the thing patented, and still leaves a material and substantial part unaffected by the objection, will not be an answer to the action, but will simply prevent the recovery of costs. But a defence which goes to the originality of the whole patent, and leaves nothing new that is material and substantial, and capable of distinction as the subject-matter of the plaintiff's invention, will be an answer to the action, notwithstanding any disclaimer. It is obviously necessary, therefore, to specify in the notice of defence the particular parts of the thing patented which it is intended to attack.

§ 283. Another of the statute defences is that the paten-

tee had allowed his invention to become public, before his application for a patent, or, as it is expressed in the statute, that it "had been in public use, or on sale, with the consent or allowance of the patentee, before his application for a patent." This provision is intended to embody the defence of an abandonment or dedication to the public of his invention by the patentee, prior to his application for a patent. The question whether a patentee, by any and what degree of use of his invention before his application for a patent, could lose his inchoate right in the thing invented, and not be able afterwards to resume it at his pleasure, arose before the statute of 1836 was passed, and the Supreme Court of the United States declared that an inventor might undoubtedly abandon his invention, and surrender or dedicate it to the public; and that the question which generally arises is, whether the acts or acquiescence of the party furnish, in the given case, satisfactory proof of such an abandonment or dedication to the public. The court held that the true construction of the then existing law was, that the first inventor cannot acquire a good title to a patent, if he suffers the thing invented to go into public use, or to be publicly sold for use, before he makes application for a patent; that such a voluntary act, or acquiescence in the public sale or use, is an abandonment of his right; or rather creates a disability to comply with the terms and conditions of the law, on which alone the public officer is authorized to grant a patent. In a more recent case, the same court reëffirmed this construction of the patent laws, and held that the right of an alien patentee was vacated in the same manner by a foreign use or knowledge of his invention, under the then existing statutes.

§ 284. It was the object of the clause now under consideration to make this defence of a prior abandonment or dedication to the public available under the general issue, upon notice of the facts intended to be proved. By "public use"

is meant use in public ; that is to say, if the inventor himself makes and sells the thing to be used by others, or it is made by one other person only, with his knowledge and without objection, before his application for a patent, *a fortiori*, if he suffers it to get into general use, it will have been in "public use." But where the patentee alone makes the thing for the purposes of experiment and completion, without selling it to be used by others, the term "public use" is not applicable.

§ 285. An important question next arises, as to what will constitute proof of the "consent and allowance" of the patentee to the "public use or sale" of his invention before his application. In the first place, a knowledge of such public use or sale by others, without objection on his part, will go far towards raising the presumption of an acquiescence, and in some cases will be a sufficient proof of it. The question in such cases is as to his consent ; and if knowledge of the use of his invention by others is brought home to him, and no exclusive right has been asserted by him against that use, his silence will furnish very strong evidence that he has waived his right. If the evidence shows a long acquiescence, or a very general use, it will be conclusive.

§ 286. In the second place, although acquiescence cannot be presumed without knowledge, such knowledge may be presumed from circumstances, and is not always required to be proved by direct evidence.

§ 287. In the third place, no particular lapse of time is necessary to be shown, after knowledge and acquiescence are established, in order to prove an abandonment or dedication to the public. In one of the cases the invention was made in the year 1804, and suffered to go into general use without any claim of an exclusive right, or any objection,

and without receiving any compensation, until the year 1822. In another case the invention was completed in 1811, and the letters-patent were obtained in 1818; in the interval, a single individual had made and publicly sold large quantities of the thing patented under an agreement with the inventor as to price. In a third case, the inventor, who was a foreigner, came to this country in 1817, and might lawfully have applied for a patent in 1819, but did not do so until three years afterwards. It appeared that he invented the instrument in 1813 or 1814, and made it known to certain persons in England, by or through whom, contrary to his intention, it was publicly used and sold there. In a fourth case, in England, the patentee had sold the article in the public market four months before the date of the patent. In all these cases the patentee was held to have abandoned or dedicated to the public his right in the invention.

§ 288. But on the other hand, it is a still further question, what constitutes a public use, with the consent or allowance of the patentee? What acts, in other terms, within a longer or shorter period of time, or what permission to use, granted or allowed to several persons, or restricted to a single instance, or what use by the patentee himself, will amount to an abandonment or dedication to the public? Is the intention with which the acts are done, or the use permitted, an element in the question, or is the intention wholly immaterial, provided certain acts are done, or a certain use is permitted? In determining these questions, it is necessary to discriminate between the cases of a use permitted to others, or of a knowledge imparted to others, and the exercise or practice of the invention by the patentee himself.

§ 289. The Supreme Court of the United States have said that the intention of the inventor is not the true ground in these cases; that "whatever may be his intention, if he

suffers the invention to get into public use, through any means whatsoever, without an immediate assertion of his right, he is not entitled to a patent; nor will a patent obtained under such circumstances, protect his right." The meaning of this obviously is, that no matter what the intention of the patentee was, in imparting to another a knowledge of his invention, if the person or persons to whom he had so imparted it, afterwards, though fraudulently, use the invention in public, and the patentee looks on without objection or assertion of his right, the public will have become possessed of the invention, and the patentee cannot resume his right in it by obtaining a patent. This meaning is apparent from other parts of the opinion in the same case; for the court say, that if the invention has become known to the public through fraudulent means, the patentee should assert his right immediately, and take the necessary steps to legalize it. So, too, it is apparent from the opinion of the same court, in another case, that it is the voluntary acquiescence of the inventor in the *public use*, and not his voluntarily imparting the knowledge to the person who fraudulently or otherwise uses it in public, that fastens upon him the presumption of a dedication. It is also clear, that when the act or acts of user were by way of experiment, in order to perfect the invention, the inventor does not lose his right.

§ 290. Hence it appears, that the intention with which the inventor did the acts which are relied on as proof of "public use" is material, unless the evidence goes to the extent of showing, that the invention had got beyond the control of the inventor, and he had not taken any steps to prevent its being thus situated. In other words, it may be a material element, in determining whether the presumption of acquiescence in public use arises, to ascertain whether the inventor used the invention himself, or imparted a knowledge of it to others, with or without an intention to

limit such use or knowledge, in respect to time, extent, or object.

§ 291. Where a party practises his invention himself, for the purposes of experiment or completion before he takes out a patent, the inference that he intends to surrender his invention to the public does not arise; and consequently a dedication cannot be proved by evidence that shows only experimental practice by the inventor, whether in public or in private. Indeed, it may be stated, as a general test, in cases of a supposed dedication through the using, exercising, or practising the invention by the patentee himself, previous to his application for a patent, that whenever the evidence stops short of proving such a use, exercise, or practice for the purpose of gain, a "public use" will not be proved.

§ 292. It has been held in England, where the "public use" must be a public use in England, that the making in England of a single pair of wheels, the subject of the patent, under the direction of the patentee, but under an injunction of secrecy, to be sent abroad for a person who intended to take a share in the patent, was not a public use within the realm. But as our law stood before the year 1839, if the inventor sold to any one who might choose to buy, although it was only a single specimen of his invention, and sold for profit on it as an invention, such a sale would be a "public use," and the unlimited nature of the object with which a knowledge of the invention was imparted, would prevent him from resuming his exclusive right by a subsequent patent. It will presently be stated, how far the law has been modified in this respect.

§ 293. Another limitation to the doctrine of presumptive dedication, or public use, with the consent, &c., is found in the case of a piratical user of the invention, by a party to whom the inventor has imparted a knowledge of it in confi-

dence, before he has applied for a patent. Many inventions can be perfected and carried into practice only through the aid of workmen, servants, and other *employées*. We have seen that an inventor may entrust another person, confidentially, with a knowledge of his invention, for certain limited purposes; and if such a person afterwards fraudulently makes public the knowledge so acquired, the authorities seem to be agreed, that the inventor may, if he takes immediate steps to give notice of his exclusive right, obtain a valid patent. The words of the statute, describing the defence now under consideration, make it clear, that, if the invention has come into public use through a breach of confidence, it cannot be said to be in public use "with the consent or allowance" of the patentee; it is only when he has been silent after it has so become public, that the presumption of consent and allowance arises. The Act of 1839, as will appear hereafter, has made this point still more clear. Another instance of a use, which will not expose the patentee to the consequences of this defence, is where the use has been permitted to others, for other limited purposes than those of experiment or completion, as from motives of neighborly kindness and the like. The test applicable here is that the evidence excludes the supposition that the patentee has put the thing into public use, for the purpose of profit on it, as an invention. If a patentee could show clearly that he had allowed to others a limited use of his invention, not for his own profit, but for their accommodation, in a manner consistent with a clear intention to hold the exclusive privilege, and the invention had not got beyond his control, with his apparent acquiescence, he would not be within the mischief of this part of the statute. Of course, mere delay to take out a patent, unaccompanied by public use or sale of the thing, with the consent or allowance of the patentee, before his application, however long may be the interval between the completion of the thing and the application, will have no effect upon the patent. Mere delay has no other importance than as it

tends to show acquiescence in such public use as may have occurred, in the mean time; or to show that the acts of the inventors went beyond a use or permission to use, for the purpose of experiment, or other limited object.

§ 294. It now remains to be stated, how far this defence of a "prior public use or sale with the consent or allowance" of the patentee has been restricted or modified by subsequent legislation. Under this clause of the Act of 1836, a use of the invention by a single person, or a sale of the thing invented to a single person, might, as we have seen, amount to a public use or sale, with the consent or allowance of the patentee. To remedy the inconvenience arising from this operation of the law, the Act of 1839, § 7, provided "that every person or corporation, who has or shall have purchased or constructed any newly-invented machine, manufacture, or composition of matter, prior to the application, by the inventor or discoverer, for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture, or composition of matter, so made or purchased, without liability therefor to the inventor, or any other person interested in such invention; and no patent shall be held to be invalid, by reason of such purchase, sale, or use, prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public; or that such purchase, sale, or prior use, has been for more than two years prior to such application for a patent."

§ 295. This enactment enables a patentee to permit the use of his invention, by individuals, before his application, with more safety than he formerly could. Such use is not to invalidate the patent, except on proof of abandonment of the invention to the public, or that it had been continued for more than two years prior to the application for a patent. The question arises upon this provision, then, whether the

particular purchase, sale, or prior use, may of itself, under some circumstances, furnish proof of abandonment to the public, or whether such an abandonment must be proved by other cases, and by other evidence *dehors* the particular purchase, sale, or prior use, that happens to be in question. The obvious construction of the act is, that a purchase, sale, or prior use, before the application for a patent, shall not invalidate it, *unless* it amounts to an abandonment to the public; a purchase, sale, or prior use, shall not have this effect, *per se*, but if connected with facts which show an abandonment to the public, or if it has been for more than two years prior to the application, it will have this effect. Thus, where the defendants used an invention for four months before the application of the inventor for a patent, such use being in public, with the consent and allowance of the patentee, he being in their employ, and making a part of the apparatus, by which the invention was to be applied, but receiving no compensation for the use of his invention, and not giving any notice to the defendants not to use his invention, until, on a misunderstanding upon another subject, he left their employment; the Supreme Court of the United States said that it would be no strained construction, under such circumstances, to hold that the patent, subsequently obtained, was void; although the decision merely went to the point that the acts of the patentee justified the presumption of a license to the defendants.

§ 296. The words of the statute which thus authorizes a public use or sale by or to individuals, prior to the application for a patent, make the subject of such use or sale, "any newly invented machine, manufacture, or composition of matter;" and the purchaser is authorized to use, and vend to others to be used, "the specific machine, manufacture or composition of matter," without liability to the inventor, &c.; and then the statute declares, that the patent shall still be valid, notwithstanding such prior use or sale, except on

proof of the abandonment of "such invention" to the public, &c. It might admit of some doubt, upon this language, whether the invention of a method of manufacture, a process, or an art, or anything but a machine, a manufacture, or a composition of matter, is within the scope of the provision, and whether the purchaser could do anything more than use or vend to others to be used the specific thing which he had purchased. But the Supreme Court of the United States have construed the terms "newly invented machine, manufacture, or composition of matter," to mean "the invention patented," whatever it may be; and the words "the specific machine," to refer to the thing as originally invented, of which the right is afterwards secured by a patent; so that according to the precedent afforded by the case in which this construction was adopted, this statute embraces whatever may be the subject-matter of a valid patent, although it may be a process, or method of manufacture, and not a machine, &c.

§ 297. The result, therefore, of the different statute provisions and the authorities, is, that this defence of a prior public use or sale, with the consent or allowance of the patentee, can now be made good so as to invalidate a patent, only by showing an abandonment to the public, or that the use or sale dates from a period more than two years before the application for a patent; that such an abandonment will not be proved by the particular act of use or sale alone, but that the act of use or sale may be attended with such circumstances as to amount to an abandonment; and that the abandonment may also be proved by other acts or omissions disconnected with the particular use or sale which the patentee may have allowed to individuals, and which he can show did not alone amount to an abandonment.

§ 298. The next special defence stated in the Act of 1836 is, "that the patentee had surreptitiously or unjustly ob-

tained the patent for that which was in fact invented or discovered by another, who was using reasonable diligence in adapting and perfecting the same." This provision was intended to embrace the case of a patent being obtained fraudulently, when the party obtaining it was not the inventor, and also the case of two independent inventors, where the one makes his application before the other, who was the first inventor, and so obtains a patent for that which was previously invented by another.

§ 299. With regard to the first case, of a patent obtained by a person not the inventor, by a fraud on the rights of the real inventor, it is sufficient to observe that such a defence, if made out, would be a complete bar to the action, upon general principles, as well as upon other provisions of the statute. One of the modes in which a patent may be thus surreptitiously obtained is by obtaining a knowledge of the invention from the public records, where the inventor has deposited a description of it. When the real inventor has filed such a description at the Patent Office, or has obtained a patent, he has given notice to every subsequent applicant for a patent for the same thing of the fact that he invented it; and although others may not afterwards be able to offer direct evidence that a subsequent patentee had seen and pirated the machine or other thing invented by the former applicant or patentee, yet the jury may infer a piracy from the existence of the former record, of which every subsequent patentee is presumed to have knowledge. As to the case of two independent inventors, one of whom makes an earlier application than another for a patent, and succeeds in obtaining it, it will be a good defence to an action upon such a patent, if it can be shown that the same thing was first invented by another, although not actually perfected, provided the first inventor was at the time using reasonable diligence in adapting and perfecting the thing invented.

§ 300. The last defence mentioned in the statute is, that the patentee, being an alien at the time the patent was granted, "had failed and neglected, for the space of eighteen months from the date of the patent, to put and continue on sale to the public, on reasonable terms, the invention or discovery for which the patent issued." The object of this provision was, to prevent foreign inventors from obtaining patents in this country, and afterwards withholding the use of their inventions from the public for an unreasonable length of time.

CHAPTER III.

OF THE REMEDY IN EQUITY TO RESTRAIN INFRINGEMENTS.

§ 301. WE have seen that the common law and the statute both afford a remedy, by an action for damages, for the infringement of patent rights. But this remedy would be wholly inadequate to the protection of such rights, if it were not accompanied and fortified by another remedy, which flows from that great principle of equity jurisprudence, that where there is a legal right, and the nature of the injury to which it is exposed is such that a preventive remedy is indispensable, equity will afford that remedy, by an injunction. The grounds of the equity jurisdiction in cases of patents are, the prevention of irreparable mischiefs, the suppression of a multiplicity of suits and vexatious litigation, and the more complete discovery, from the party guilty of infringement, of the extent of the injury done to the patentee, than can be obtained in an action at law. It does not belong to the purposes of this work to trace the origin of this branch of equity jurisdiction, nor is it necessary to do so, since the patent laws have expressly adopted, in the broadest terms, the remedy which it affords, for the protection of patent rights, and have directed the proper courts "to grant injunctions according to the course and principles of courts of equity, to prevent the violation of the rights of any inventor as secured to him by any law of the United States, on such terms and conditions as the said courts may deem reasonable." All that is requisite, therefore, in the present work, is to develop the application of the doctrines and practice of courts of equity to the rights of inventors, in the remedy by injunction.

§ 302. As a preliminary remark, however, we may notice, that the discretion vested in the court by the terms of the statute above cited, to grant injunctions on such terms and conditions as the court may deem reasonable, is in perfect accordance with the principles of equity. This discretion is not a wholly unregulated discretion, but the clause in which it is expressed is to be considered as affected by the previous direction that the injunction is to be granted according to the course and principles of courts of equity, which are guided by certain well-settled rules; so that the terms and conditions to be imposed in each case will be ascertained by applying to the circumstances of the case those principles and that course of practice which have been usually followed, and which will admit of a "reasonable" application to the particular facts of the case.

§ 303. I. *The Parties.* The parties entitled to relief in equity against the infringement of a patent are, first, the party or parties interested in the patent. As the remedy in equity is given in order to protect a legal right, and as the statute gives a right of action to the person or persons interested, whether as patentee, assignees, or grantees of the exclusive right for a particular district, it follows that any person holding the legal title, or the right to bring an action, may bring a bill for an injunction.

§ 304. We have seen when the assignee of a patent may sue at law in his own name, and when he should join his assignor. The same rules will govern in equity, in determining who are necessary parties to the bill. If the assignee has the whole interest, he may sue alone; but if he has less than the whole interest, he must join the patentee. If the assignment has not been recorded, the assignee is not substituted to the right and responsibility of the patentee, so as to maintain any suit at law or in equity, founded upon the patent; and where there is a joint suit by the patentee and

the assignee, and a disclaimer has been filed by the patentee, in which the assignee did not join, the disclaimer cannot operate in favor of the complainants in such a bill, or in an action at law.

§ 305. There is, however, one distinction between an action at law and a suit in equity, in respect to the parties, and that is the case of an assignment of the exclusive right for a particular district. The grantee of such a right may bring an action at law, within his own district, for an infringement, even against the patentee himself, and consequently he may bring such an action always in his own name.

§ 306. But in equity the patentee may be joined with the assignee of such an exclusive right, if it be a right to use a limited number of the patented machines in a particular district, because the interest of the patentee is not all vested in the grantee, who, although he may prevent the patentee from licensing other persons within the district, cannot obtain for himself the right to use more machines than the original grant authorized, without paying the patentee for such further license. This interest renders the patentee a proper party in such a bill. Different persons, who have infringed a patent independently of each other, cannot be made defendants in the same bill.

§ 307. II. *The Bill.* A Bill for an injunction to restrain the infringement of a patent, after the address to the court and the statement of the parties, should recite the application for the letters-patent, by the inventor, and the compliance by him with all the pre-requisites for obtaining them, and the issue of the letters, giving the title as it is contained in them *verbatim*, their attestation by the proper officers, and their delivery to the patentee. Profert of the letters should be made, but it is not necessary to set forth the description of the invention given in the specification. It is necessary,

however, to state that the plaintiff, after the issuing of the patent, put his invention into use, and is, at the time of filing the bill, in the exclusive possession of it. If the bill is brought upon the title of an assignee, either of the whole or a part of the interest, or of an administrator, or if the patent has been renewed, or extended, or amended by a disclaimer, the facts should be properly set forth, to show the present state of the title and the right for which protection is asked. The bill should further state the infringement complained of, whether it has been actually committed or is threatened, and if the right has been previously established by an action at law, against the same or any other party, or an injunction has been previously obtained against the same or any other party, the fact should be set forth. These averments are usually followed by a statement that the defendant has been requested to desist from the use of the invention, and to account for the damages which the plaintiff has sustained. Then follows the charge of actual combination by the defendant with others, if the facts require it, and of a conspiracy, if one is intended to be proved, to destroy the plaintiff's exclusive privilege. The prayer of the bill is for a discovery upon oath and particular answers to the interrogatories, which should be pointed at all the previous material averments in the bill, for a general answer to the bill, for a decree that the defendant account for and pay over the gains and profits which have accrued to him from using the invention, for an injunction to restrain the defendant from the further use of the invention, and to compel the delivery or destruction of the machines or other things which he has made, and for further relief. The prayer should close with asking for a writ of injunction, and a subpœna. The bill should be sworn to, by the usual affidavit.

§ 308. It may often be a serious question, whether an original bill filed for an injunction and other relief is affected by

a subsequent surrender and renewal of the patent, pending the proceedings. In a case where this had happened, and a temporary injunction had been granted on the original bill, in which the patentee and certain assignees were plaintiffs, and upon the new patent a supplemental bill was filed against the defendant for the continuance of the injunction and other relief, the injunction was ordered to stand continued, as to the new patent, stated in the supplemental bill, until the hearing or further order. Hence it appears, that when a patent is surrendered and renewed, pending a temporary injunction, a supplemental bill is necessary, in order to continue the injunction as to the new patent.

§ 309. III. *The Injunction.* We have now to state, in the first place, the general principles on which courts of equity proceed in granting, continuing, or dissolving injunctions, in cases of patents. To obtain an injunction, the plaintiff must accompany his application with an affidavit that he then believes himself to be the original and first inventor of the thing patented; for, it is said, although when he obtained his patent he might have very honestly sworn as to his belief of such being the fact, yet circumstances may have subsequently intervened, or information may have been communicated, sufficient to convince him that it was not his own original invention, and that he was under a mistake when he applied for his patent. Such a special affidavit was required by Mr. Justice Washington to be subjoined to a bill. And it is the usual practice, on moving for an injunction before the answer has been filed, to read such an affidavit, as well as others to the same purport.

§ 310. In the courts of the United States, notice that an injunction is to be applied for must be served on the defendant, as no injunction, whether temporary or final, can be granted without reasonable previous notice to the adverse party or his attorneys, of the time and place of moving for

the same. Injunctions, therefore, are not granted in our courts on *ex parte* applications, in cases of patents, although they may be granted on filing the bill and before answer, on notice to the party to be affected, as well as after answer and upon the hearing.

§ 311. The bill and the application being, then, in proper form, the first thing to be considered is, whether the court will require the patentee to establish his legal right by an action at law, before it grants the injunction, or whether it will grant the injunction, in the first instance, upon the proof of a legal right, furnished by the bill itself, and the accompanying affidavits. Upon this point the rule is, that where a patent has been granted, and there has been an exclusive possession of some duration under it, the court will interpose its injunction, without putting the party previously to establish the validity of his patent by an action. But where the patent is but of yesterday, and, upon an application being made for an injunction, it is endeavored to be shown, in opposition to it, that there is no good specification, or otherwise that the patent ought not to have been granted, the court will not, from its own notions upon the matter in dispute, act upon the presumed validity or invalidity of the patent, without the right having been ascertained by a previous trial, but will send the patentee to law, to establish the validity of his patent in a court of law, before it will grant him the benefit of an injunction.

§ 312. The rule thus stated has been followed by our own courts, with further explanations, which extend its application to the particular facts of the cases that have arisen. The practice is, to grant an injunction upon the filing of the bill, and before a trial at law, if the bill state a clear right, and verify the same by affidavit. If the bill states an exclusive possession of the invention or discovery, an injunction is granted, although the court may feel doubts as to the

validity of the patent. But if the defects in the patent or specification are so glaring that the court can entertain no doubt as to that point, it would be most unjust to restrain the defendant from using a machine, or other thing which he may have constructed, probably at great expense, until a decision at law can be had. Where the bill states a clear right to the thing patented, which, together with the alleged infringement, is verified by affidavit, if the patentee has been in possession of it, by having used or sold it in part, or in the whole, the court will grant an injunction, and continue it till the hearing, or further order, without sending the plaintiff to law to try the right. But, if there appeared to be a reasonable doubt as to the plaintiff's right, or as to the validity of the patent, the court will require the plaintiff to try his title at law, sometimes accompanied with an order to expedite the trial, and will permit him to return for an account, in case the trial at law should be in his favor.

§ 313. It appears, therefore, that upon the question of first sending the plaintiff to law to try the validity of his patent, the general rule must be subdivided according to the aspect and position of the case before the court. The cases may be ranged under three different classes. *First*, where there is nothing before the court, as evidence, but the bill and the affidavits in support of it; *second*, where the injunction is asked before the final hearing, and the respondent offers evidence, either in the answer, or by affidavits, affecting the validity of the patent; *third*, where the question comes on upon the hearing, and the full proofs taken in the cause.

§ 314. These different aspects of the cause may now be considered separately, with reference to this question. *First*, where the plaintiff asks for an injunction upon the bill and affidavits, and no opposing evidence is adduced, but the respondent appears and objects. In such cases, the bill and the affidavits must show the issuing of the patent, and an

exclusive possession of the right of some duration ; and, when these are shown, although the court may feel some doubts as to the validity of the patent, the injunction will be granted without a previous trial at law ; but if the patent contains glaring defects, so that no doubt can be entertained, or the bill is defective in material allegations, the injunction will not be granted, but the plaintiff will be required to try his title at law. Some additional evidence, besides the mere issue of the patent, must be offered ; and this evidence will be the fact, that after he had procured his patent, the plaintiff proceeded to put that right into exercise or use for some time, without being disturbed ; a circumstance that strengthens the probability that the patent is good, and renders it so likely, as alone often to justify the issue of an injunction in aid of it. It will also be further additional evidence, in support of the *primâ facie* right to an injunction, that the patentee has successfully prosecuted other persons for violating it.

§ 315. *Secondly.* Where the injunction is asked for before the hearing, but opposing evidence is adduced by the respondent against the validity of the patent. In these cases, several elements enter into the rule that is to guide the discretion of the court. How far, and for what length of time, there has been an exclusive possession or assertion of the right ; how far the respondent has succeeded in raising doubts as to the novelty of the invention, or as to its being a patentable subject, or as to the infringement ; and how far a long possession will go to counteract evidence impeaching the validity of the patent — are some of the circumstances to be weighed in determining whether the plaintiff's *primâ facie* right to an injunction has been answered by the respondent to that extent, that the court will suspend the injunction until the plaintiff has established his right by an action. It seems to be the result of all the authorities that there is a *primâ facie* right to an injunction, without a trial

at law, upon certain things being shown, namely, a patent, long possession, and infringement. The question will therefore be, in cases of opposing evidence, where that right has been shown, whether it has been displaced by the respondent.

§ 316. When the presumption in favor of the validity of the patent has been strengthened by evidence of enjoyment and possession undisturbed for several years, and recoveries against other persons for violating it, it will not be sufficient to deprive the plaintiff of the injunction before a trial at law, for the defendant to read affidavits tending to cast doubts on the originality of the invention, especially if that evidence is answered by what is stronger on the part of the patentee.

§ 317. But when an injunction is asked before the trial and resisted, and doubts are cast on the originality and validity of the patent, if the counterbalancing and fortifying circumstances of long possession, use, or sale to a considerable extent, and former recoveries under it, do not exist, the injunction will not be allowed before trial.

§ 318. If the respondent succeeds in raising doubts both as to the exclusive possession and as to the novelty of what is claimed, and the evidence on these points is conflicting, the injunction will be refused until a trial.

§ 319. If the question of infringement is doubtful, it must be tried by a jury; and in a case of this kind, the court will order an action to be brought to try the infringement, the respondents being ordered to keep an account, and to admit the plaintiff's title to the patent. The same rule would be applicable to the granting an injunction in the first instance.

§ 320. It seems, also, that another element to be considered is, the effect of the injunction on the defendant's

business. As the granting of an injunction rests in the discretion of the court exercised upon all the circumstances of the case, and as the object of the injunction is to prevent mischief, it is said that where irreparable mischief would ensue from it to the defendant, it ought not to be granted. But this must be understood as applying to a case where the plaintiff would not be injured by the delay, but would be left in *statu quo* after a trial establishing the validity of his patent; or, at least, where the rights of the plaintiff are capable of being fully protected by an account to be kept in the interim; because the object of the court is to preserve to each party the benefit to which he is entitled.

§ 321. Nor will an injunction be granted, where the plaintiff has permitted the defendant to go on and incur expense under the expectation of receiving a certain sum, if the relations between them are such as to allow of the defendant's disputing the plaintiff's right as patentee. But it seems that where the defendant is estopped at law from denying the validity of the patent, an injunction will be granted; but if there is a real question to be tried, and a year's rent for the use of the invention is due, the court will order the money to be paid into court, to wait the event of the trial.

§ 322. If the plaintiff shows the necessary possession, and an infringement has actually been committed by the defendant, the injunction will be granted, notwithstanding the defendant admits the infringement and promises not to repeat it.

§ 323. *Third.* The third class of cases is where the question of granting the injunction comes on upon the final hearing; and here the situation of the parties is entirely different from the state of things on an interlocutory motion. The object of a bill in equity to protect a patent is a perpetual injunction; and this in general can only be granted

at the hearing; and if granted at the hearing, it will necessarily be perpetual. Objections raised by the defendant, therefore, to the validity of the patent, at the hearing, require a very different consideration from the court; because the question is, whether the court will give any assistance to a party, who might have applied for an interlocutory hearing, and so have given the defendant an opportunity to have had the legal title investigated, but has not done so. In such cases, where there are no circumstances shown which would have prevented the plaintiff from asking for an injunction in the progress of the cause, it will not only not be granted at the hearing, but the bill will be dismissed with costs, if it has been pending for a long time, and the answer had denied the validity of the patent and the fact of infringement.

§ 324. The next question is, supposing that an injunction is not to be granted simply, and without any terms, what course is to be taken? This part of the subject embraces the cases where the plaintiff will be sent to try his title at law, without an injunction, and the cases where an injunction will be granted, but the plaintiff will be required to establish his patent at law. The plaintiff will be sent to a court of law, to establish the validity of his patent without a previous injunction, if he does not show long possession and exercise of his exclusive right, where the injunction is resisted by evidence which casts doubt on the originality of his invention, or on the question of infringement, or where the patent contains gross and obvious defects.

§ 325. With regard to the length of time during which possession and exercise of the exclusive right must be shown, it does not appear that any specific lapse of time has been adopted as a standard; and, indeed, it is manifest that no positive rule can be assumed, applicable to all cases. The general principle is, as we have seen, that the time elapsed between the granting of the patent and the application for an

injunction must have been sufficient to have permitted articles or machines to be constructed by the patentee in conformity with his claim, and to be sold publicly and repeatedly. It must also appear that the thing has in fact been sold publicly, if that is the kind of possession relied on; and where the proof of possession consists of former recoveries, or licenses granted to parties who have been sued and have submitted, if it appears doubtful whether such recoveries and submissions were not collusively obtained, the necessary kind of possession will not be made out, and the right will first have to be tried at law. But it does not impair the effect of such recoveries or submissions, that they were obtained by agreement and without trial, if there was at first a real contest.

§ 326. Where, however, former use or former recoveries are relied upon, as proof of the possession of the exclusive right, they must have been under the same patent, or under a patent connected in law with that under which the application is made; otherwise it will not appear that they related to the same right. But under our system of amending specifications, or of surrendering an old patent and taking a new one on account of informalities, the right in contemplation of law remains the same, after the issue of the new patent, if it is in fact for the same invention; and consequently a former possession under the old patent will be ground for granting an injunction, without a previous trial, under the amended patent. Usually, where an injunction is not granted, but the plaintiff is required to establish his title at law, the defendant will be ordered to keep an account until the question is determined. It seems, that where both parties claim under patents, the court cannot grant an injunction until the rights have been tried at law.

§ 327. The cases where an injunction will be granted, but the plaintiff will be required to establish his patent at law, do not admit of any very precise classification under a

distinct rule. The court must exercise its discretion upon the circumstances. If the plaintiff has, by proof of possession and enjoyment, made out a *primâ facie* case for an injunction, it will then be for the court to consider whether the nature of the case entitles the defendant to a further investigation into the validity of the patent or into the fact of infringement. The defendant will have a right to further investigation, if he shows that there are any questions of fact or of law, which a court of equity does not ordinarily undertake to settle; and this investigation will generally be ordered to take place in an action at law, although it is competent for the court to direct an issue out of chancery.

§ 328. A denial in the answer, as to the validity of the patent, or the fact of infringement, will be sufficient to entitle the defendant to further investigation in an action at law; but it has been held that, under our system, if the defendant wishes to try the question of originality in an issue out of chancery, he must set out in his answer the names of places and persons where and by whom the invention had previously been used, because the Act of Congress peremptorily requires notice of these facts, in a trial of this question at law.

§ 329. The fact of the pendency of an action against another party has been held not to be a sufficient ground for continuing an injunction, where the novelty of the invention was denied in the answer, without putting the plaintiff to bring an action against the new defendant.

§ 330. The practice of the court in dissolving, reviving, continuing, or making final injunctions, previously granted, is regulated, in general, by the same rules as the practice of granting them in the first instance. A motion to dissolve an injunction may be made at any time. If made after a trial has been ordered at law, or while an action at law is

pending, or while the plaintiff is preparing to bring an action, the decision of the court will be made upon the same principles which governed the granting of the injunction in the first instance; that is to say, the defendant will not succeed in displacing the plaintiff's *primâ facie* right to an injunction merely by filing an answer, or reading affidavits casting doubts on the validity of the patent, provided the plaintiff is guilty of no unreasonable delay in bringing on the trial; especially if the plaintiff adduces auxiliary evidence in favor of his right.

§ 331. Where the motion to dissolve is made after a trial at law has been had, the court will have to look at the result of that trial, and will be governed by the position in which the plaintiff's right has been left. If the proceedings at law are not in a state to be regarded as final, the court will choose to be informed as to the further questions which remain to be investigated. If a verdict has been rendered for the plaintiff, but a new trial has been or is to be moved for, and if the court can see that there is a question on which an argument might be addressed to the court of law, which might induce it to grant a new trial, the injunction will not be continued, as a matter of course, but the court will endeavor to leave the parties in a situation that will produce, on the whole, the least inconvenience, having regard to all the circumstances of their respective situations.

§ 332. Sometimes the court will direct a motion for an injunction to stand over, when none has been granted, until it can be ascertained what the result of an application for a new trial is to be; and where a rule, to show cause why a new trial should not be had, had been granted, an injunction was refused, it not having been allowed before.

§ 333. This course of proceeding shows that when a new trial has been or is intended to be applied for, a court of

equity will generally leave the parties in the situation in which they stood before the trial. If no injunction had been previously granted, the court will not increase the defendant's burdens by imposing one, as long as the plaintiff's right remains doubtful at law. But if an injunction has been granted, and the plaintiff has succeeded at law, it would seem that the injunction ought not to be dissolved, on the mere suggestion that there is ground for a new trial, unless the court sees sufficient ground of doubt of the plaintiff's right; but that the court will exercise its discretion, and, if it sees reason for dissolving the injunction, it will direct the defendant to keep an account pending the discontinuance of the injunction, in order that, if it finally turns out that the plaintiff has a valid patent, he may receive amends for the injury occasioned by the resistance to his just demands. After a trial and judgment at law, in favor of the plaintiff, the injunction will be revived or granted as matter of course.

§ 334. An important part of the remedial process in equity is the account of profits made by the defendant. Sometimes an account is ordered to be kept, in lieu of granting or continuing an injunction, and it is always ordered when the injunction is made perpetual, unless the amount would be very small. The cases in which an account is ordered to be kept either with or without an injunction, during the pendency of an action in which the right is to be tried, proceed upon the principle that the plaintiff may turn out to be entitled to the right, and he is more secure of ample justice if the account of the defendant's profits is kept while he is using the invention, than if it were deferred to be taken at a future time, especially if the defendant is left at liberty to make new contracts. Such an account will be ordered, if the injunction is dissolved by reason of the irreparable injury it would do to the defendant's business.

§ 335. Sometimes, as a further means of doing justice

between the parties, upon the question of infringement, when an action at law is to be tried, the court will order a mutual inspection of the plaintiff's and defendant's works. The object in so doing is to enable the parties, on the trial, to give such evidence as will tend to prove or disprove the fact of infringement. For this purpose inspectors or viewers are appointed, under the direction of the court, who are to be admitted as witnesses on the trial at law. If the parties do not agree on the persons to be appointed, the court will appoint them.

§ 336. When the validity of the patent is fully established, an account will be ordered of all the profits made by the defendant, to be taken by a master; and if the patent has expired, the account and the injunction will extend to all the articles piratically made during the existence of the patent, though some of them may remain unsold.

§ 337. An injunction should not be dissolved merely on account of doubts as to the validity of the patent, which arise from objections to the technical form or signature of the letters, or other acts or omissions of the public officers, and not from any neglect or wrong of the patentee.

§ 338. Upon the question of granting an injunction against a party who has had the use of the invention by permission or grant of the patentee, the doctrine seems to be this. A party who has had such use of an invention, under a contract for an annual rent, or other estimated rate of payment, may discontinue the payment, and, if he still use the invention, the patentee may sue him for the rent due, or for an infringement. If an action is brought for the rent, and the defendant is not estopped by the terms of his contract from denying the validity of his patent, the plaintiff cannot recover without giving him an opportunity to do so. The same is true under an action for the infringement, if

the defendant is not estopped. Where, therefore, a court of equity does not see that the defendant is estopped from denying the validity of the patent, but that he has a right to resist the patent, it will deal with a defendant who has used under a license or other contract, or under permission, upon the question of injunction, as it deals with other defendants; and, as we have seen, if the bill which prays for an injunction, also shows that rent is due by contract, the court will order the money to be paid into court, to await the result of an action at law.

§ 339. It has been held that in a bill in equity for a perpetual injunction, it is a good defence that, prior to the granting of the patent, the inventor had allowed the invention to go into public use, without objection; but that it should be clearly established, by proof, that such public use was with the knowledge and consent of the inventor. This is the same as one of the statute defences against an action at law, which may all be made, pursuant to the statute, in equity, if the defendant chooses, although the statute has expressly made them defences only in an action at law.

§ 340. If the patentee, after obtaining his patent, dedicates or surrenders it to public use, or acquiesces for a long period in the public use of his invention, without objection, he is not entitled to the aid of a court of equity to protect it; and such acquiescence may amount to complete proof of a dedication or surrender to the public. The ground upon which a court of equity refuses to interfere in such cases, is, that by his own conduct the plaintiff may have led or encouraged the defendant to make use of his invention.

§ 341. But although it is a principle of equity, that a patentee must not lie by, and by his silence or acquiescence induce another to go on expending his money and incurring risk, and afterwards, if profit is made, come and claim a

share in the profit, without having been exposed to share in the losses; yet delay to institute his proceedings may be explained by the difficulty of getting evidence of the infringement.

§ 342. It has already been stated that in all cases of proceedings in equity to restrain the infringement of patents, in the courts of the United States, the injunction can, at no time, be applied for without notice to the adverse party, giving him an opportunity to oppose it; and, therefore, the injunction is always *special*. Where the injunction is applied for before an answer has been filed, the plaintiff, in addition to the allegations in his bill, must read affidavits to show his title, and the fact of infringement, especially if the defendant appears and offers evidence against the one or the other; and these affidavits should, in strictness, cover the issuing of the patent, the novelty of the invention, and all other facts necessary to the title. It is believed, however, that in our practice, where the whole title is set out in the bill, which is sworn to, if the defendant does not read affidavits denying the title, it is not usual to read them in support of the title, which is considered as verified by the bill itself. But, if the defendant attacks the title by affidavit, it must be supported by auxiliary proof in addition to the bill, in order to make out the *primâ facie* right to an injunction.

CHAPTER IV.

EVIDENCE.

§ 343. THE evidence appropriate to the different stages of a patent cause may be divided into (1) the evidence of title, and (2) the evidence upon the point of infringement. Evidence of title relates to the letters-patent, and the plaintiff's interest therein, the novelty and utility of the invention, and the sufficiency of the specification. Evidence of the infringement relates to the identity of the thing made, used, or practised, by the defendant, with the invention of the patentee.

§ 344. I. *As to the plaintiff's title.* With regard to the letters-patent, the statute of 1836, §§ 4, 5, makes a copy under the seal of the Patent Office and the signature of the commissioner, competent evidence that a patent has been granted by the government for the invention described in the specification annexed. If the patent produced in evidence refers to the description in a former patent, it is necessary to produce and read that former patent, in order to show what the invention is, if it is not made entirely clear and intelligible by the patent on which the action is brought.

§ 345. The letters-patent being thus proved to have issued, they are *primâ facie* evidence that the patentee was the first inventor of the thing patented. The reason upon which this is held is, that the statute requires the patentee to make oath that he is the first and true inventor of the thing; and when the patent has issued, supported by this oath, the burthen of proof is cast upon the party who would

object, to show that the grant has been improperly obtained by the patentee; because the law presumes, in the first instance, that the patent has been granted upon the proofs which the statute requires to be laid before the officers of the government, and that those proofs were satisfactory.

§ 346. When the patentee wishes to strengthen this evidence, either in the opening of his case, or to rebut any evidence offered by the defendant which may have tended to show that he was not the first inventor, he can only call persons who were in the way of hearing of the invention if it had existed before, to testify that they have not heard of it. The proposition which the plaintiff has to establish is, strictly, a negative; he is to prove that the invention did not exist before; and, therefore, as has been said, he must proceed by exhausting the affirmative instances of it, by calling those persons who might have known of it, if it had existed before, but who never have heard of it; and the more those persons, from their acquaintance with the particular trade or manufacture, were in the way of hearing of or meeting with it, the stronger the evidence will be.

§ 347. Although this evidence is only general and negative, it is not, on that account, without weight. To illustrate its force, as well as its proper office, we may suppose a case, where the defendant had succeeded in showing that some prior inventor had made experiments in the same line as the patentee, and that this evidence goes so far as to show that that person had probably accomplished the same result as the patentee; but the point is still left in doubt, whether he had actually reached and perfected the invention for which the plaintiff has obtained a patent. The rule of law in such cases is, that if the prior efforts of some preceding inventor rested in experiment alone, his experiments, however near they may have been carried to the complete production of the thing, will not prevent a subsequent more successful

inventor, who has produced the perfect result at which both may have aimed, from obtaining a valid patent. The question for the jury will therefore be, in such cases, whether the efforts of the prior inventor rested in experiment alone, without coming to the point of completion, both in the theory and the actual application of the invention. Upon this question, the fact that the invention was never heard of until it was known to have proceeded from the present patentee, is of great weight. If it had been heard of among those persons who make it the business of their lives to know what is going on in the particular trade or art which it concerns, or to know what inventions in all arts or trades are from time to time produced, prior to the time when it was made by the patentee, the presumption would be very strong, that the person who is proved to have made near experiments towards it had actually accomplished the perfect result. Still the evidence would not be conclusive, because the report that such an invention had been made might have arisen from what had been done in the way of experiment alone. But it would be very strong presumptive evidence that the experiments had terminated successfully, if persons who were in the way of hearing of such inventions should testify that they had heard of such an invention having been announced, although they had not seen it. On the other hand, if such persons had not heard of such an invention, the evidence would not show conclusively that the prior experiments rested in experiment alone, but it would have a very strong tendency to establish this conclusion, because there is an irresistible tendency in inventions to become known, as to their results, if not as to their processes, whenever the results are accomplished.

§ 348. There is one other species of evidence, applicable to the issue of novelty, when the question is as to the time when the patentee had completed his invention. It may be necessary for the plaintiff to rebut evidence offered by the

defendant as to the invention and use of the same thing by other persons before the date of his patent, and hence it may be important to show the precise time when the invention was completed by the patentee. For this purpose, the patentee may give in evidence, to some extent, his own declarations, describing the nature and objects of the invention.

§ 349. Sometimes the issue of novelty involves the identity or diversity of the thing patented, compared with something before known or used, on which the defendant relies to defeat the patent. The nature of the evidence, and the sources from which it is to be drawn, are the same upon this issue as when the question of identity or diversity arises under the issue respecting an infringement; and the consideration of the principles of evidence on both of these issues may here be postponed until we come to the general discussion of the question of identity.

§ 350. The plaintiff must also offer some evidence of the utility of his invention. The degree of utility, as we have seen, is not material; but the invention must be capable of some use, beneficial to society. This is ordinarily proved by the evidence of persons conversant with the subject, who may be called to say whether the thing invented is or is not capable of the use for which it is designed, or whether it is an improvement upon what had been in use before. But it may also be proved by other testimony, which will show that large orders have been given for the article by the public, or that licenses have been taken for the exercise of the right.

§ 351. The plaintiff, in addition to the *primâ facie* evidence of the novelty of his subject-matter, must also offer some proof of the sufficiency of his specification. In other words, he must show, to use the language of the statute, that

his specification is "in such full, clear, and exact terms as to enable any person, skilled in the art or science to which it appertains, to make, construct, compound, or use," the thing patented. This may be apparent to the jury on the face of the specification itself, from its simplicity and the absence of technical terms and descriptions ; but where the invention is at all complicated, or terms of art or science are made use of requiring the exercise of technical knowledge to determine whether the specification is sufficient, it is at least advisable if not necessary, for the plaintiff, in opening his case, to give some evidence that his specification can be applied by those to whom the law supposes it to be addressed. If the sufficiency of the specification is disputed, the plaintiff must go into evidence to sustain it. How much of this evidence may properly be reserved for answer to the defendant's case, and how much should be introduced in the plaintiff's opening, must depend on the circumstances of the trial, although it may be stated, as a general rule, that slight evidence of sufficiency is all that is necessary to be offered at first, in order to make it incumbent on the defendant to falsify the specification.

§ 352. The nature and source of the evidence, to show the sufficiency of a specification, present a topic of much interest, under that somewhat difficult branch of the law of evidence which relates to experts. What is the meaning of the statute, when it refers to the ability of persons "skilled in the art or science" to which the invention appertains, "or with which it is most nearly connected," to make, construct, compound, and use the same? Does it mean to adopt as witnesses those only who have the practical skill of artisans in the art or science, and to make their ability to understand and apply the specification the test of its sufficiency ; or does it include that higher class of persons, who, from general scientific knowledge, or from a theoretical acquaintance with the principles of the art or science

involved, might be able to teach an artisan or practical workman how to practise the invention? It is apparent that both of these classes of persons may be within the literal meaning of the phrase "skilled in the art or science;" but the question is, whether the law contemplates one only, or both of them, as the proper witnesses to determine the sufficiency of a specification. It seems to me very clear, that the law means to adopt, as a general standard of the sufficiency of a specification, the ability of skilful practical workmen to practise the invention from the directions given in the specifications. The standard of acquirement and knowledge may vary with the nature of the subject-matter; but where the invention falls within the province of an art or science, which is practised by a particular class of mechanics, operators, manufacturers, or other workmen, who possess, and whose vocation it is to apply, technical knowledge, in that particular branch of industry, the patent law refers to their capacity to take the specification and carry out in practice the direction which it contains, without invention or addition of their own.

§ 353. Thus, if the invention be a pump, or of some improvement in pumps, the question will be whether a pump-maker of ordinary skill could construct one upon the plan given in the specification, from the directions given. If it be a composition of matter, falling within the art of practical chemistry, the question on the specification will be whether its directions are so clear and intelligible, that a practical chemist of ordinary skill could make the compound, by following out the directions. If it be a process, involving the application of a principle in physics to a particular branch of manufacture, to be carried into effect in a particular manner, the question will be whether the directions, if fairly followed out by a competent workman, of the class ordinarily employed to construct an apparatus of that kind, would produce the effect intended. This seems to be

the general rule, applicable to a very large proportion of the inventions which become the subjects of patents ; and accordingly it may be stated as a general rule that the proper witnesses to determine on the sufficiency of a specification are practical workmen of ordinary skill in the particular branch of industry to which the patent relates, because it is to them that the specification is supposed to be addressed.

§ 354. At the same time, there may be another class of witnesses, of much higher character, competent to be examined on this point. These are persons who possess a thorough scientific knowledge, of a theoretical nature, of the principles of the art or science to which the patent relates, but who do not, as an habitual occupation, devote themselves to the application of those principles in the practical exercise of that art, science, or manufacture. Such persons may, without doubt, be examined as to the sufficiency of a specification ; but the question which should be propounded to them, in cases where there is a recognized class of practical workmen who would be called upon to apply the directions of the specification, is, whether a person of that class, of ordinary skill, could practise the invention from these directions. There does not seem to be any authority which goes the length of saying that a specification, in cases of this kind, would be good, if every competent artisan who might be called were to testify that he could not apply the directions successfully, provided a scientific witness of the other class were to testify that he could teach or demonstrate to an artisan how to apply them ; although proof may be offered of the opinions of scientific witnesses, that a particular means which might be used to carry out the general directions of a specification, would succeed, without showing that that means had actually been tried and had succeeded.

§ 355. Whether there is a class of inventions, addressed

so entirely to scientific witnesses, as to render their knowledge and skill requisite, in the practical application of the directions, so that there cannot be said to be any recognized class of artisans, to whose capacity the directions can be referred, is another question. This must depend on the nature of the invention.

§ 356. Before it can be determined, in any case, what class of persons are to be taken as those whose ability to apply the directions furnishes the standard of the sufficiency of the specification, it must first be ascertained to what class of persons the specification is presumed to be addressed. as being those who are to carry out the directions. If the inquiry arose after the patent had expired, this class of persons would, in most cases, be readily ascertained, by observing what persons applied themselves to the practice of the invention. But it actually arises before the patent has expired, and before its dedication to the public enables us to see what persons will undertake to practise the invention. That state of things must, therefore, be anticipated, so far as to ascertain what persons will undertake practically to carry out the directions of the patent, for the purpose for which the invention is designed. The standard, therefore, will vary greatly, according to the nature of the invention. In some cases, the persons who will undertake to practise it will be very numerous, in others, very limited, in point of numbers. In some cases, the qualifications will be very moderate; in others, a very high state of accomplishment, skill, and knowledge, will be requisite. The nature and objects of the invention must be resorted to, to see to what persons the specification is to be presumed to be addressed. If it be a machine destined to a particular use, the workmen whose vocation it is to make similar machines, for similar purposes, will be the persons who would be called upon to make the machine after the patent has expired. If it be a composition of matter, involving the knowledge of practical

chemists, such persons will attempt to practise the invention, when they are at liberty to do so. If it be a manufacture of an improved character, the persons whose business it has been to make the old article will be the persons who will make the new one. In all these and similar cases, where there is a class of workmen who are habituated to the practical exercise of the art or science under which the patented invention falls, the specification is to be presumed to be addressed to them; and, although scientific witnesses may be examined, as to the clearness and fulness of the specification, its sufficiency must be referred to the ability of competent practical workmen, of ordinary skill, to understand and apply it. This limitation of the evidence follows, necessarily, from the principle that the specification cannot be supported by the fresh invention and correction of a scientific person. The ordinary knowledge and skill of practical workmen being the standard, where the specification is for the benefit of a particular trade, the evidence cannot be carried so far as to include the degree of skill and knowledge possessed by a scientific person, who could, on a mere hint, invent the thing proposed to be accomplished; although such a witness may be asked, whether a competent workman could attain the object of the patent, by following out the directions.

§ 357. But if the invention be of a character entirely novel, embodying an effect never before produced, and which it is not within the province of any particular class of workmen to produce, but which it belongs rather to the province of men possessed of some science to apply, by directing the labors of common artisans, upon principles which such artisans do not commonly understand or undertake to use, then the specification may be presumed to be addressed to men capable of applying those principles, and not to mere artisans, who have previously been employed in the construction of things of the same class which it is the object of the invention to supersede. Thus, in the case of an invention which

consisted in an improvement on paddle-wheels for propelling vessels, by a mode of constructing them so that the floats might enter and quit the water at any required angle, the specification would be addressed to engineers capable of determining what angle was required, and it ought to furnish the rules by which such persons could ascertain the angle, and the mechanical means by which it could be applied in practice. The understanding of such a specification would be somewhat above the range of acquirements belonging to mechanics employed in the manual labor of constructing the machinery; that is to say, the specification would be addressed to competent engineers, of ordinary skill in that profession.

§ 358. But it should be remembered, that whenever, in a case of this kind, as in all other cases, the persons to whom the specification is to be presumed to be addressed, have been ascertained, a rule becomes applicable, which defines the nature and scope of the evidence that may be offered, to explain the specification. This rule is, that the patentee must not, in framing his specification, call upon the persons to whom it is addressed to exercise more than the actual existing knowledge common to their trade or profession. He has a right to exhaust this knowledge; but if, in order to apply his directions, the members of the trade or profession are required to tax their ingenuity or invention, so that, beyond the exercise of ordinary and competent skill, they would have to solve a problem, or supply something, in the process, by the exercise of the inventive faculty; the specification would be bad.

§ 359. II. *As to the Infringement.* Upon the question of infringement, the point to be determined is, whether the thing made or used by the defendant is, in the sense of the patent law, identical with the invention of the patentee. This is the same question as that which arises on the issues

of novelty, when it is necessary to determine whether the invention of the patentee is the same as some former thing, or different, and therefore entitled to be regarded as a novelty. We may, therefore, here consider the principles of evidence applicable to the inquiry, whether two things are identical in the sense of the patent law.

§ 360. It is obvious that there may be two kinds of evidence applicable to this issue, both of which may be drawn from experts. Whether one thing is like another, is a matter of judgment, to be determined on the evidence of our own senses, or the senses of others. If we rely on the senses of others, the sole testimony which they can bear, is, either as to the matters of fact which constitute the precise differences or resemblances between the two things, or as to matter of opinion, by which they infer that these differences or resemblances do, or do not, affect the question of the substantial identity of the two things. Both of these kinds of evidence, however, run so nearly into each other, and the boundaries between them are often so shadowy, that it is sometimes difficult to draw the line between fact and opinion. The actual differences or resemblances between two things are *primâ facie* matters of fact, to be observed by the senses; but with the act of observing these differences or resemblances we blend the process of reasoning, by which we determine, for our own satisfaction, what is a real, and what only an apparent, difference or resemblance; what constitutes a difference or resemblance, in point of principle; and the result of this process, expressed in the conclusion, that the two things are, or are not, identical, is matter of opinion. Between these two branches of evidence, it is exceedingly difficult to draw the line, so as to define the true office of an expert and to admit all proper evidence of fact and opinions, without leaving to the witness the whole determination of the issue.

§ 361. At the same time, it is certain that a boundary exists somewhere. The question where two things are identical, in the sense of the patent law, is a mixed question of law and fact; and when it is submitted to a jury, it is for the court to instruct them, after the actual differences or resemblances are ascertained, what constitutes, in point of law, a difference or identity. There is, therefore, a most important function to be discharged, if one may so say, by the law itself; for it has to determine, upon all the facts open to the observation of the senses, whether guided by the superior facility for observation enjoyed by experts, or not so assisted, whether, in the sense of the law, there is an identity or a difference. This function is always in danger of being encroached upon, by a loose mode of receiving the testimony of experts, by whom the whole question is often in reality left to be decided.

§ 362. The testimony of persons skilled in the particular subject is undoubtedly admissible, for two purposes: *first*, to point out and explain the points of actual resemblance or difference; *secondly*, to state, as matter of opinion, whether these resemblances or differences are material; whether they are important or unimportant; whether the changes introduced are merely the substitution of one mechanical or chemical equivalent for another, or whether they constitute a real change of structure or composition, affecting the substance of the invention. But when these facts and opinions have been ascertained, the judgment of the jury is to be exercised, upon the whole of the evidence, under the instructions of the court as to what constitutes such a change as will in point of law amount to a fresh invention, and, therefore, will not be an infringement.

§ 363. The duty of giving this instruction should not be surrendered by the court. A scientific witness may be asked, for instance, whether, in his opinion, a particular machine is

substantially new in its structure, or mode of operation, or whether it is substantially the same thing as another, with only apparent differences of form and structure. But when the differences or resemblances have been pointed out, and when the view that science takes of their relative importance has been ascertained; when the fact appears of whether a particular change is or is not regarded by mechanicians as the substitute of one mechanical equivalent for another, the court must instruct the jury, whether the particular change amounts, in point of law, to a change of what is commonly called the principle of the machine. This is a question wholly aside from the function of a witness. The most skilful and scientific mechanician in the world can only say what, in his opinion, are the differences or resemblances between one machine and another, and how far they are regarded by mechanicians as material or substantial. But the question of what constitutes a fresh invention, or what, upon a given state of facts, amounts to a change so great as to support an independent patent for a new thing, is a question of law; and this question is involved in every issue as to the identity of two things, whether it relates to the question of infringement or of prior invention.

§ 364. The evidence for the defendant, upon the question of novelty, will of course consist of proof, positive in its nature, that the thing patented existed before; and if any credible evidence of this is adduced, it will outweigh all the negative evidence that can be offered by the plaintiff. But whenever the defendant relies on the fact of a previous invention, knowledge, or use of the thing patented, he must give notice of the names and places of residence of the persons who he intends to prove have possessed a prior knowledge or had a prior use of it.

§ 365. Persons who have used the machine patented are not thereby rendered incompetent as witnesses, on account of interest. It has been held that a witness who was pa-

tentee in another patent, and had sold to the defendant the right to use the machine, the use of which was complained of as an infringement, was a competent witness, since any verdict that the plaintiff might recover could not be given in evidence by the plaintiff in an action against the witness. A patentee who has assigned the whole of his interest in the patent, is a competent witness for the assignee in support of it. A licensee is a competent witness for the patent, in an action for an infringement, for he has no direct pecuniary interest in supporting the patent, but it may be for his advantage that it should not be supported. Evidence, on the part of the plaintiff, that the persons, of whose prior use of a patented machine the defendant had given evidence, had paid the plaintiff for licenses, ought not to be absolutely rejected, though entitled to very little weight.

CHAPTER V.

QUESTIONS OF LAW AND QUESTIONS OF FACT.

§ 366. THE several provinces of the court and the jury, in the trial of patent causes, have already been incidentally alluded to; but it may be useful to practical men to give here a summary of the principal questions which constitute matters of fact and matters of law.

§ 367. The question of *novelty* is a question of fact for the jury. It embraces the two questions of whether the plaintiff, or patentee, was the inventor of the thing patented, and whether the thing patented is substantially different from anything before known. These are questions of fact for the jury upon the evidence. But it is for the court to instruct the jury what constitutes novelty in the sense of the patent law, as well as what amounts to a sufficiency of invention to support a patent. So, also, the question of prior public use is a question of fact.

§ 368. The question whether the renewed patent is for the same invention as the original patent, is also a question of fact for the jury; as is likewise the question whether the invention had been abandoned to the public.

§ 369. The question of *utility* is a question of fact, under some circumstances, and under other circumstances it may be for the court, without referring it to the jury, to pronounce the patent void. We have seen that a "useful invention," in the sense of our law, is one not injurious or mischievous

to society, and not frivolous or insignificant, but capable of use for a purpose from which some advantage can be derived; and that when an invention is useful in this sense, the degree or extent of its usefulness is wholly unimportant. There are, therefore, two modes in which the utility of an invention may be impeached: first, when it appears, on the face of the letters-patent and specification, that the invention is injurious to the morals or health of society; secondly, when it appears, on the evidence, that the thing invented, although its object may be innocent or useful, is not capable of being used to effect the object proposed.

§ 370. The question whether the invention is useful, in the first sense, is a question whether the patent is void, on the face of it, as being against public policy; or, in other words, because the subject-matter disclosed by the patent is not a patentable subject. This is a question of law for the court. But when it does not appear that the invention has any noxious or mischievous tendency, but on the contrary that its object is innocent or salutary, there may be a further question, whether the means by which the inventor professes to accomplish that object will in practice succeed or fail. It is not essential to the validity of a patent that the success of the means made use of should be complete, or that the thing invented should supersede anything else used for the same purpose; because the law looks only to the fact that the invention is capable of some use. Thus, if a machine is useful for some of the cases for which it is intended, although cases may occur in which it does not answer, it is still useful, in this sense of the patent law; but if anything claimed as an essential part of the invention is useless altogether, the patent is invalid, because there is a total failure in point of usefulness. These questions, whether the invention is capable of use for the purpose for which it is claimed, and whether anything claimed as essential is entirely useless, depend upon evidence, and are questions of fact for the jury.

§ 371. In like manner, the question whether an invention is frivolous or insignificant, is a question of law. If the object proposed to be accomplished is a frivolous or insignificant object, from which no advantage can be derived to the public, it is for the court to pronounce the patent void, as not being for a patentable subject. But if the object proposed is not clearly frivolous and unimportant, but the means by which it is proposed to be accomplished do not succeed in producing the result, the question returns to the usefulness of the means, and this again becomes a question of fact for the jury.

§ 372. The construction of the specification, as to the extent of the claim, belongs to the province of the court. The court must determine, upon the whole instrument, what the claim actually covers, and whether the patent is valid in point of law. The jury are, therefore, to take the construction of the patent, as to the extent of the claim, from the court, and to determine whether anything that is included in the claim is not new. But if the specification contains terms of art, which require explanation, by means of evidence, it is for the jury to find the meaning of those terms.

§ 373. And here it is very important to ascertain whether there are any principles which are to guide the court in construing patents, peculiar to these instruments, or whether they are to be construed in all respects like other written instruments, and without the aid of extrinsic evidence. In one sense, a patent is a deed, being a grant of the government under seal; the letters-patent, the specification, and the drawings annexed, being taken together as one instrument. But it often happens that the extent of the claim is not manifest on the face of the specification itself. The question arises, therefore, how is the court to ascertain the precise extent of the claim, as matter of law? The specification is a written instrument, in which the patentee has

undertaken to state the invention which he professes to have made, and for which he has obtained letters-patent. In determining the real extent of the claim thus made, it is obvious that the actual invention of the party is a necessary auxiliary to the construction of the language which he has employed in describing it. The thing of which the patentee was the real inventor is what he was entitled to claim, and the question, in all cases requiring construction, will be, whether he has claimed more or less than that thing, or exactly what that thing is. If he has claimed more than his actual invention, that is, more than that of which he was an original and the first inventor, his claim is inoperative, under our law, *pro tanto*. If he has claimed less, his exclusive right is restricted to what he has claimed. If he has claimed the just extent of his actual invention, he is entitled to hold it, in all its length and breadth.

§ 374. There are two sources to which the court is entitled to resort in construing a claim. In the first place, resort may be had to the descriptive parts of the specification, where the patentee has undertaken to state what his invention is; in other words, the court is to inquire what the patentee has said that he had invented. If his statement or description of the invention is clear and explicit, then the language in which he has made his claim, which is generally to be found in a summary statement of the subject-matter for which he asks a patent, may and should be construed so as to include the actual invention previously set forth, if it can be so construed without violation of principle; for the general maxim, under which the construction is to be pursued, is, according to the spirit of the modern authorities, *ut res magis valeat quam pereat*.

§ 375. But it may be uncertain upon the terms of the descriptive parts of the specification, if unaided by evidence, what the precise extent of the invention was; and this may

happen, without that degree and kind of ambiguity which renders a patent void for uncertainty, or because the directions could not be carried out by a competent workman. For instance, the patentee may state that he employs something which turns out not to be new; and the question will then be, whether he has so described that thing as to claim it as part of his invention;—or his invention may be so stated, as to render it doubtful whether he has invented or discovered the general application of a principle to produce a particular effect, and is, therefore, entitled to claim all the forms in which the same principle can be applied to produce the same effect, or whether he has only invented or discovered a form of giving effect to a principle the application of which was known before. So, too, on the general description of a machine, or a manufacture, which, as a whole, may be new, it may be uncertain whether the party invented the various parts of which that whole is composed, or only invented the combined whole, as he has produced it; and, if the latter, whether he invented the whole, as it may embrace all the forms and dimensions in which that whole can be produced, or whether his claim is to be confined to certain forms and dimensions, there being other wholes, of the same general character, of other forms and dimensions, which it does not include.

§ 376. In such cases, the character and scope of the invention can only be ascertained by attending to what the evidence shows is new or old; to the state of the art; to the fact of whether the principle, which the patentee has employed, had been discovered and applied before, and, therefore, that he could have invented only a new form of the application, or, whether he has invented the application of the principle itself, and, consequently, is entitled, if he has not restricted himself, to claim the same application of the same principle, under other forms or dimensions, or by other means, than those which he has specifically described.

The question, whether he has limited himself to particular forms, dimensions, or methods, necessarily involves an inquiry into the substance and essence of his invention. In other words, before it can be ascertained, in doubtful cases, what he has claimed, some attention must be paid to his actual invention, as ascertained on the evidence.

§ 377. To what extent, then, is the court entitled to receive evidence of the actual invention, and how is that evidence to be applied to the construction of the claim? In the progress of a *nisi prius* trial, the state of the art, the surrounding circumstances in which the inventor was placed, the previous existence of some things mentioned or referred to in the patent, will all be likely to be developed on the evidence; and these facts may materially affect the construction to be given to the claim. It has been said, and with great propriety, that, in the exercise of the duty of determining what the claim is, in point of law, the judge must gather as he goes along; informing himself upon the evidence, and observing what facts are controverted, and what facts are not controverted, which bear upon the meaning of the claim, in reference to its extent. If the facts material to the construction are not left in doubt on the evidence, the construction will be given to the jury, absolutely; but if the evidence requires a finding of facts by the jury, the construction will be given to them conditionally.

§ 378. Among the facts which will thus exercise an important influence on the extent of the claim, is the previous existence of something mentioned in the specification. If it is manifest on the face of the terms, in which the patentee has described his invention, that he has included something of which he was not the inventor, his patent cannot be allowed to cover it. But it may be doubtful whether he has so included the thing which the evidence shows to be old; and then the degree or extent to which that thing was

known before, its great familiarity and constant use for analogous purposes, will be important elements in the question, whether the patentee has claimed it as of his own invention. This consideration has given rise to the rule, that the patentee is to be presumed not to intend to claim things which he must know to be in use; which is only another application of the broader rule, that a specification should be so read, as, consistently with the fair import of language, will make the claim coëxtensive with the actual discovery or invention.

§ 379. Another important consideration will be the state of the art. If, for instance, a patent contemplates the use of certain substances, although it may make use of terms extensive enough to embrace other substances, which, in the progress of the art, have been ascertained to be capable of the same use, but at the time of the patent were not known to be so, or, being known at the time to be capable of the same use, were yet so expensive as not to be expected to be in use for the same purpose, the general terms of the specification will be so interpreted as to include only those substances of the same kind with the particular substances mentioned, which may reasonably be supposed, on the state of the art, to have been contemplated at the time. This is to be ascertained by evidence.

§ 380. Thus, on a specification describing "an improved gas apparatus, for the purposes of extracting inflammable gas by heat from pit coal, or tar, or *any other substance* from which gas or gases capable of being employed for illumination can be extracted by heat;" it appeared that it was known, at the date of the patent, as a philosophical fact, that oil would yield inflammable gas, but that the apparatus described in the specification could not be used advantageously, if at all, for the making of gas from oil; it was answered, that it was a general opinion at the time, that

nothing but coal would be cheap enough for purposes of illumination; and the court held that the patentee must be understood to mean things that were in use, and not everything which would produce gas, but, from being so expensive, was never expected to be in use.

§ 381. Sometimes, the construction may rest on facts, which are so referred to as to make a part of the description and to govern it. If these facts are controverted, they are to be left to the jury. But if they are proved, or admitted, the court will take notice of them in giving a legal construction to the instrument. Thus, where the question was, whether, in the specification of an improvement in the machine known by the name of speeder, double-speeder, or fly-frame, used for roving cotton, preparatory to spinning, the patentee had confined himself to the use of the bow-flyer, that is, a flyer in "one continuous piece," as part of his new combination; it appeared that the specification thus described the invention: "It will be seen that the flyers, as used by me, and shown at, &c., *are made in one continuous piece, instead of being open at the bottom, as is the case with those generally used in the English fly-frame*, and this, among other reasons, enables me to give the increased velocity above referred to." The patentee then summed up his claim as follows: "What I claim as new, &c., is the arrangement of the spindles and flyers, in two rows, *in combination with the described arrangement of gearing*," which he had previously pointed out. Although the language here did not admit of much doubt, as to the kind of flyer intended to be claimed, the court took notice of the admitted or apparent facts, which tended to show that the bow-flyer alone was intended; one of which was, that the bow-flyer alone could be geared, as the patentee had described his flyer to be, in two places, through its bottom; the other form of the open-flyer having no bottom susceptible of being used or geared in that manner.

§ 382. The sufficiency of the description to enable competent persons to apply the invention, is a question of fact for the jury, on the testimony of experts and the language itself. But it does not follow from this, that the construction of the specification is to be drawn into the province of the jury. Their province is, after having been informed what the specification has said, to determine whether the directions are sufficiently clear and explicit to enable a competent workman to practise the invention. The information of what the specification has said, is to come from the court; although it may happen, that, in determining the meaning of the specification, the aid of the jury will be required to ascertain the meaning of words of art, or the surrounding circumstances which govern that meaning. When such words of art or such surrounding circumstances do affect the meaning, the court will instruct the jury that the specification has said so and so, according as they find the meaning of the scientific terms, or the existence of the surrounding circumstances. But if there are no words of art, and no surrounding circumstances, to be ascertained, the court, as we have seen, will instruct the jury what the specification has said; and then the jury will determine, the specification having said so and so, whether the description is sufficient to enable a competent workman to put the invention in practice.

§ 383. There is no positive rule by which it can be determined, in a given case, *a priori*, whether the meaning of words of art, or the bearing of surrounding circumstances, affects the sense of the specification; or which limits the right of the plaintiff to offer evidence to show that its meaning is so affected. The plaintiff is always entitled to say, that his specification requires the explanation of facts, to determine the extent of his claim and the character of his invention; and the only course that can be taken is, for the court to receive and watch the evidence, and to apply it to

the construction, taking care that it be not allowed to go so far as to supply positive omissions, which would render the specification defective. Within this limit, the construction, which is nothing more than the ascertaining of the meaning of what is written, may always be affected by evidence; which is to be taken into view, although no conflict arises, requiring a finding of the jury, because the court can have no judicial knowledge either of the terms of art or of the surrounding circumstances, and cannot say, until it has heard the evidence, that the meaning is not to be affected by them.

§ 384. The provinces of the court and the jury, then, are distinct, and upon this particular question of the practicability of the specification, it is of consequence that they should not be confounded. When it is put to a jury to determine whether a specification has so fully and accurately described the invention that others can practise it from the description, the danger sometimes arises, of their undertaking to determine what the claim is; because the extent and character of the claim itself may depend on the same words, on which they are to decide the intelligibility of the directions, and may thus seem to be inseparably blended with the question of that intelligibility. But in truth these questions are always separable, and care should be taken to separate them. In one aspect, everything is for the jury, which bears on the question, whether the specification sufficiently describes the mode of carrying the invention into effect; but, on the other hand, the meaning of the very passages on which this question arises, in relation to the prior question of what the specification has said, is for the court, after the facts which bear upon that meaning have been ascertained.

§ 385. The question whether the invention disclosed by the specification is a proper subject for a patent, is a question of law, on which the court will instruct the jury. It may

involve the finding of a variety of facts; but when the facts are all ascertained, it is purely a question of law, whether the invention or discovery is a patentable subject. This is a distinct and very different question from that of the novelty of the invention. The thing claimed as the subject of a patent may be entirely new, and yet it may not fall within that class of discoveries or inventions recognized by the patent law as the subjects of patents, and as such comprehended within the description of the statute. Thus, the subject-matter may turn out to be the application of an old or well-known thing to a new purpose, constituting a new use only so far as the occasion is concerned; which the law decides is not the subject of a patent. Or, on the other hand, the claim may be for the use of a known thing in a known manner, to produce effects already known, but producing those effects so as to be more economically or beneficially enjoyed by the public; which the law decides is a patentable subject. In these and other cases, where the question arises, upon all the facts attending and surrounding the alleged invention, whether it is a patentable subject, it is for the court to settle that question. Of course, the novelty of the invention is a pre-requisite to the validity of the patent, and this is a question of fact; but the alleged invention being ascertained to be new, it is still to be determined whether it is that species of invention to which the law gives the protection of a patent.

§ 386. The question of infringement is, as has already been stated, a question whether the invention of the defendant is substantially the same thing as that of the plaintiff. The identity of two things is a matter of fact, depending upon evidence; and although it is to be determined under the guidance of those principles which determine what constitutes identity and diversity in the sense of the patent law, yet it is for the jury to determine, as matter of fact, under proper instructions, whether the two things are the same or different.

CHAPTER VI.

JURISDICTION OF CONGRESS AND THE FEDERAL COURTS.

§ 387. THE Constitution of the United States confers upon Congress power "to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." This power is general; there is no distinction which limits it to cases where the invention has been known or used by the public. Accordingly, it is well settled, that Congress may pass general or special laws in favor of inventors; and they may leave a particular inventor to the protection afforded by a general law, or they may specially exempt his case from the operation of a general law, by extending his exclusive right beyond the term fixed by such general law. This may be done after the invention has been in the possession of the public, as well as before; for when the exclusive privilege has once been secured, the grant does not imply an irrevocable contract with the public, that, at the expiration of the period, the invention shall become public property.

§ 388. Congress, therefore, has power to pass an act which will operate retrospectively to give a patent for an invention which is already in public use; but no act, it has been said, ought to be construed to operate retrospectively, unless such a construction is unavoidable.

§ 389. The Act of Congress of July 4, 1836, § 17, declares, "that all actions, suits, controversies, and cases, arising under any law of the United States, granting or confirming to inventors the exclusive right to their inventions or dis-

coveries, shall be originally cognizable, as well in equity as at law, by the circuit courts of the United States, or any district court having the powers and jurisdiction of a circuit court, which courts shall have power, upon bill in equity filed by any party aggrieved, in any such case, to grant injunctions, according to the course and principles of courts of equity, to prevent the violation of the rights of any inventor as secured to him by any law of the United States, on such terms and conditions as said courts may deem reasonable: Provided, however, that, from all judgments and decrees, from any such court rendered in the premises, a writ of error or appeal, as the case may require, shall lie to the Supreme Court of the United States, in the same manner and under the same circumstances as is now provided by law in other judgments and decrees of circuit courts, and in all other cases in which the court shall deem it reasonable to allow the same.

§ 390. The jurisdiction of the circuit courts of the United States embraces, therefore, all cases, both at law and in equity, arising under the patent laws, without regard to the citizenship of the parties or the amount in controversy; and it seems to be the better opinion, that this jurisdiction is exclusive, and that the state courts cannot entertain a suit for the infringement of a patent, or to declare a patent void.

§ 391. When a case is sent to the Supreme Court of the United States, under the discretion conferred upon the court below by the seventeenth section of the Act of 1836, the whole case is to go up. The word "reasonable" in the statute applies to the "cases" rather than to the points of the cases.

INFORMATION
TO
PERSONS HAVING BUSINESS TO TRANSACT
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§ I. OF THE FORMS PRESCRIBED BY LAW, AND THE
RULES ADOPTED BY THE OFFICE.

THE following forms and rules are founded, the first upon positive law, and the second upon the constructive power the Commissioner has to issue such orders as will secure impartial justice to applicants, and facilitate the transaction of business.

The laws now in force relative to patents, are those approved July 4th, 1836, March 3, 1837, March 3, 1839, August 29, 1842, May 27, 1848, and March 3, 1849.

The forms resting upon these are fixed, and cannot, of course, be varied without the intervention of Congress; but rules, having their origin in the Commissioner, can be revised or modified at his discretion.

§ II. FOR WHAT PATENTS MAY BE GRANTED.

By the act of 1836, section 6, patents were granted for any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used by others before the applicant's discovery or invention thereof, and not, at the time of his application for a patent, in public use, or on sale, with his consent or allowance, as the inventor or discoverer; but, by the act of 3d

March, 1839, no patent is held to be invalid by reason of the purchase, sale, or use [of the invention] prior to the application for a patent, except on proof of abandonment of such invention to the public, or that such purchase, sale, or public use, has been for more than two years prior to such application for a patent.

By the 3d section of the act of 1842, patents are also granted for new and original *designs* :

1. For a manufacture, whether of metal or other material.
2. For the printing of woollen, silk, cotton, or other fabrics.
3. For busts, statues, or bas reliefs, or composition in alto or basso relievo.
4. For any impression or ornament, (whether complete in itself, or) to be placed on any article or manufacture in marble or other material.
5. For any new and original pattern, or print, or picture, to be either worked into or worked on, or printed or painted, or cast or otherwise fixed on, any article of manufacture.
6. For any new shape or configuration of any article of manufacture.

All such designs not being previously known or used by others.

§ III. TO WHOM PATENTS MAY BE GRANTED.

Patents are granted to citizens of the United States, to aliens who shall have been resident in the United States one year next preceding, and shall have made oath of their intention to become citizens thereof—to one or more assignees of entire patent rights—to administrators and executors, and to foreign inventors or discoverers; but the law makes no provision for granting to the latter patents for new and original *designs*.

In case of the decease of an inventor, before he has obtained a patent for his invention, "the right of applying for and obtaining such patent shall devolve on the administrator or executor of such person, in trust for the heirs at law of the deceased, if he shall have died intestate; but if other-

wise, then in trust for his devisees, in as full and ample manner, and under the same conditions, limitations, and restrictions, as the same was held, or might have been claimed or enjoyed, by such person in his or her lifetime; and when application for a patent shall be made by such legal representatives, the oath or affirmation shall be so varied as to be applicable to them."

Joint inventors are entitled to a joint patent, but neither can claim one separately.

§ IV. OF APPLICATIONS FOR PATENTS.

Of the propriety of making an application for a patent, the inventor or his agent must be the sole judge. The Patent Office is open; the records and models may be consulted during office hours, and the applicant can personally, or by attorney, satisfy himself of the expediency of filing his papers.

Further than the facilities thus afforded, the office can yield no assistance, until the case is regularly before it in manner prescribed by law.

By the act of July 4, 1836, entitled "An act to promote the useful arts, and to repeal all acts and parts of acts heretofore made for that purpose," a principle entirely new was engrafted upon the system under which patents had been previously granted.

Under the provisions of this act, it was made the duty of the Commissioner of Patents, on the receipt of any application for a patent, to institute "an examination of the alleged new invention or discovery," with a view to determine whether the same had been before "invented or discovered by any other person in this country," or "patented or described in any printed publication, in this or any foreign country." Thus was the grant of patents in future restricted to such "inventions or discoveries" as were *new* in the most absolute sense of the term; and a very laborious and responsible duty imposed upon this office. In aid of the solution

of the question of *novelty*, thus raised on every application, the applicant was required to furnish a full and clear description of his invention, signed, witnessed and verified by his oath, accompanied by a model and drawings of the same; all being deemed necessary in order to illustrate his claim to a patent. Furnished with these illustrations, the office was then required to go into a vigorous and extended examination, taking in the whole range of history on the given subject, whether its evidences were to be found in patents granted, caveats filed, or descriptions published, in this or any foreign country, in any period of time.

In the conduct of these examinations, it is necessary to keep in constant and laborious employment, a number of persons specially selected for their knowledge and skill in the arts; to refer with guarded care to caveats filed in the secret archives of the office, and which can only come into view on such occasions; to patents already granted, and to such works on the arts as have been published here or elsewhere; and also to keep pace with the current of invention throughout the world, by a constant and copious supply of such publications in this country and in Europe as are devoted to this object.

It will readily be seen that this office cannot undertake to respond to the numerous inquiries *CONSTANTLY addressed to it*, whether such or such an invention is new, and whether a patent can be obtained for it; because every such inquiry involves the *whole question of novelty*; and before the office could express, or even form, an opinion, the same range of rigorous examination now required by law on a regular application, would be necessary, and this, too, without illustration. Such inquiries are based on very imperfect general descriptions; while, in applications for patents, the law requires that the office shall have the aid, not only of clear and full description, under oath, but also accurate drawings and models, before it shall decide the question whether, in any given case, the invention be *new*, &c. The attempt to

answer such interrogatories would effectually interrupt the business of the office, and be a direct infringement on the rights of those who apply for patents, as the examinations of their applications must necessarily be suspended; moreover, it would be pre-judging cases, and be a violation of law.

There is another class of inquiries, which, for the reasons above enumerated, cannot meet with a response from this office, viz., inquiries founded upon brief and imperfect descriptions, propounded with a view to ascertain to whom such alleged inventions were patented.

The office is frequently called upon to explain certain principles of patent law, to give information as to modes of procedure in the protection of patents, and suits for infringements, and also as to the value of a patented invention, and upon a variety of topics concerning the rights of patentees and others. The office cannot act as counsellor for individuals, nor as an expounder of law, except in reference to questions arising within the office; and the extent of information that can be given in these cases is to forward a copy of the patent laws and the usual printed official circular.

It is hoped that this information will prove satisfactory. It will be distinctly understood that, in declining to respond to the class of inquiries above stated, this office acts under the necessity of the case, and not from any disposition to withhold information.

In presenting an application for a patent, much disappointment and delay will be avoided by attending to the following directions: 1st. The *petition* should be made to the *Commissioner*, praying that a patent may be granted for the invention. 2d. The *specification* should be filed, describing, as clearly and concisely as possible, the improvement made. 3d. The *Oath* or *Affirmation* should be made to the originality of the invention. 4th. *Drawings*, when the nature of the case admits of them, should accompany the application. 5th. The *Model* or *Specimen*, as the case may be, clearly representing the improvement, should be deposited;

and, 6th, the *Fee* required by law should be paid, and in manner pointed out in section XVIII.

Owing to the great increase of business in this office, and in order to prevent all possibility of mistake as to the fact whether an application is complete, it has become necessary to put an end to the practice of receiving cases in detached portions at various times. It is now often the case that the fee is paid at one time, the papers forwarded at another, the drawing at a third, and the model delivered at still a different period. Long intervals are often suffered to elapse between each stage of the procedure, and it is necessary at each step to search the books of the office to ascertain what the party has done before.

In the multitude of applications, this state of things leads to the expenditure of much time, and, in case of similarity of names of parties, or of the character of inventions, is liable to be a cause of error. I have, therefore, deemed it necessary to adopt the following rule, which will be enforced on and after May 1st, 1850.

All the papers and the fee in each application must be filed in this office at the same time, whether they be delivered by the applicant or his agent, or forwarded by mail, and in those cases where the party or his agent is in this city, then the model must be delivered at the same time. If the party or his agent is not on the spot, the model can be forwarded at their convenience.

This office cannot refuse to receive such papers and fees as may be forwarded to it at different intervals, but parties who persist in such a course are warned that this office will, hereafter, not acknowledge the receipt of the same, nor hold itself responsible for any errors that may arise from such irregular proceedings.

Not until these requirements are *faithfully* and *minutely fulfilled*, according to the instructions hereafter given, can *any case* receive the action of the office.

1st. *Of the Petition.*—The inventor, having made a useful

invention or discovery, must make application in writing to the Commissioner, signifying his desire of obtaining an exclusive property therein, and praying that a patent may be granted therefor. The usual form is annexed. The petition *must* be signed by the applicant.

FORM OF PETITION.

To the Commissioner of Patents :

The Petition of John Fitch, of Philadelphia, in the County of Philadelphia, and State of Pennsylvania,

Respectfully represents :

That your petitioner has invented a new and improved mode of preventing steam-boilers from bursting, which he verily believes has not been known or used prior to the invention thereof by your petitioner. He, therefore, prays that letters-patent of the United States may be granted to him, therefor, vesting in him and his legal representatives the exclusive right to the same, upon the terms and conditions expressed in the act of Congress in that case made and provided: he having paid thirty dollars into the treasury, and complied with the other provisions of the said act.

JOHN FITCH.

2d. *Of the Specification.*—He must then deliver a written description of his invention or discovery, and of the manner and process of making, constructing, using, and compounding the same, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it appertains, or with which it is most clearly connected, to make, construct, compound, and use the same; and in case of any machine, he shall fully explain the principle and the several modes in which he has contemplated the application of that principle or character by which it may be distinguished from other inventions; and shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery.

It is important, in all cases, to have the specification describe the sections of the drawings, and refer by letters to the parts. The following is the form adopted by the office :

FORM OF SPECIFICATION.

To all whom it may concern :

Be it known that I, John Fitch, of Philadelphia, in the County of Philadelphia, the State of Pennsylvania, have invented a new and improved mode of preventing steam-boilers from bursting, and I do hereby declare that the following is a full and exact description thereof —reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in providing the upper part of a steam-boiler with an aperture in addition to that for the safety-valve, which aperture is to be closed by a plug or disk of alloy, which will fuse at any given degree of heat, and permit the steam to escape, should the safety-valve fail to perform its functions.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation : I construct my steam-boiler in any of the known forms, and apply thereto gauges-cocks, a safety-valve, and the other appendages of such boilers ; but, in order to obviate the danger arising from the adhesion of the safety-valve, and from other causes, I make a second opening in the top of the boiler, similar to that made for the safety-valve, as shown at A, in the accompanying drawing ; and in this opening I insert a plug or disk of fusible alloy, securing it in its place by a metal ring and screws, or otherwise. This fusible metal, I, in general, compose of a mixture of lead, tin, and bismuth, in such proportions as will insure its melting at a given temperature, which must be that to which it is intended to limit the steam ; and will, of course, vary with the pressure the boiler is intended to sustain. I surround the opening containing the fusible alloy by a tube, B, intended to conduct off any steam which may be discharged therefrom. When the temperature of the steam, in such a boiler, rises to its assigned limit, the fusible alloy will melt, and allow the steam to escape freely, thereby securing it from all danger of explosion.

What I claim as my invention, and desire to secure by letters-patent, is the application to steam-boilers of a fusible alloy, which will melt at a given temperature, and allow the steam to escape, as herein described ; using for that purpose the aforesaid metallic compound, or any other substantially the same, and which will produce the intended effect.

JOHN FITCH.

Witnesses,

ROBERT FULTON. }
OLIVER EVANS. }

When the application is for a machine, the specification should commence thus :

Be it known that I, _____, of _____, in the County of _____, and State of _____, have invented a new and useful machine for — [stating the use and title of the machine ; and if the application is for an improvement, it should read thus : a new and useful improvement on a, or on the, machine, &c.,] — and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same : reference being had to the annexed drawings, making a part of this specification, in which figure 1 is a perspective view, figure 2 a longitudinal elevation, figure 3 a transverse section, &c., [thus describing all the sections of the drawings, and then referring to the parts by letters. Then follows the description of the construction and operation of the machine, and ending with the claim, which should express the nature and character of the invention, and identify the parts claimed separately or in combination. If the specification is for an improvement, the original invention should be disclaimed, and the claim confined to the improvement.]

3d. *Of the Oath or Affirmation.* — “ Every inventor, before he can receive a patent, must make oath or affirmation that he does verily believe that he is the original and first inventor or discoverer of the art, machine, manufacture, composition, or improvement, for which he solicits a patent ; and that he does not know or believe that the same was ever before known or used ; and also of what country he is a citizen.” In every case the oath or affidavit must be made before a person having general powers to administer oaths. Justices of the peace have not, in all cases, this general power.

The oath required from applicants for patents may be taken, when the applicant is not, for the time being, residing in the United States, before any minister, plenipotentiary, chargé d'affairs, consul, or commercial agent holding commission under the government of the United States, or before any notary public of the foreign country in which such applicant may be.

If the applicant be an alien, and have resided one year in the United States next preceding the application, and have

case admits of them. They must be on separate sheets, distinct from the specification, and one at least must be made on stiff drawing paper.

The Patent Office does not make original drawings to accompany applications for patent. It furnishes copies of the same only after the patent is completed. Draughtsmen in the city of Washington are always ready to make drawings at the expense of the patentees.

5th. *Of the Model or Specimen.*—Every application must be accompanied by a model when the invention admits of one. It must be neatly and substantially made, of durable material, and if possible not over one cubic foot in contents. In case models are made of pine or other soft wood, they should be painted, stained, or varnished. The name of the inventor (and assignee, if assigned) must be printed or engraved upon, or fixed to it, in a durable manner.

When the invention is of a “composition of matter,” the law requires that the application be accompanied with specimens of the ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment.

Models and specimens forwarded without a name cannot be entered on record, and are, therefore, liable to be lost or mislaid.

Models, if deposited with any of the following agents, will be forwarded to the Patent Office, free of expense :

The Collector of the port of Portsmouth, New Hampshire.

The Collector of the port of Portland, Maine.

The Collector of the port of Burlington, Vermont.

The Collector of the port of Providence, Rhode Island.

The Collector of the port of Boston, Massachusetts.

The Collector of the port of Hartford, Connecticut.

The Collector of the port of New York.

The Collector of the port of Philadelphia, Pennsylvania.

The Collector of the port of Baltimore, Maryland.

The Collector of the port of Richmond, Virginia.

The Collector of the port of Charleston, South Carolina.

The Collector of the port of Savannah, Georgia.

The Collector of the port of New Orleans, Louisiana.

The Collector of the port of Detroit, Michigan.

The Collector of the port of Buffalo, New York.

The Surveyor at St. Louis, Missouri.

The Collector of the port of Cleveland, Ohio.

The Surveyor at Pittsburg, Pennsylvania.

The Surveyor at Cincinnati, Ohio.

The Surveyor at Louisville, Kentucky.

Agents must send models received by them by packet, when the same are forwarded at the expense of the office.

If applicants prefer to have their models transmitted by express, instead of by packet, they must, in all cases, pay the expense of transportation. Neither models nor specimens must, under any circumstances, be sent by mail. (See Sec. XX.)

The transmission of models by the agents extends to those for new applications, as well as those restored in consequence of the destruction of the originals.

Models of unpatented machines, specimens of compositions and of fabrics, and other manufactures, or works of art, will be received and arranged in the National Repository of the Patent Office.

6th. *Of fees payable for a Patent.*—The fee payable on an application for a patent by a citizen of the United States, or by a foreigner who has resided in the United States one year next preceding the application, and has made oath of his intention to become a citizen, is *thirty dollars*: By a subject of Great Britain, *five hundred dollars*: By any other foreigner, *three hundred dollars*.

In a case of a total assignment, before the patent issues, of his invention, by a foreigner to a citizen of the United States, the same fee is required as if the patent issued to the inventor himself.

Instructions in regard to the manner of paying these fees may be found in Sec. XVIII.

The above six pre-requisites having been complied with,

the application is ready for examination. But the neglect of any one of them, or of the instructions relative thereto, will be sufficient to delay the action of the office until they have been satisfactorily fulfilled.

If the following questions can be answered affirmatively, before transmitting the papers, few applications will be returned for correction :

1st. Is the petition signed by the applicant and addressed to the Commissioner of Patents ?

2d. Is the specification signed, and attested by two witnesses ; and does it contain a specific claim ?

3d. Has the inventor made oath of his citizenship, and in accordance with instructions and forms given above ?

4th. Are the drawings described and referred to in the specification ? If not, are they signed before two subscribing witnesses, and accompanied by written references ? Are duplicates sent ?

5th. Has the model (or specimen) been deposited, and is the name of the inventor and assignee, if the invention be assigned, durably affixed thereto ?

6th. Is the fee remitted, and in manner prescribed in Sec. XVIII. ?

§ V. OF THE PROCEEDINGS DURING EXAMINATION.

Applications are examined and patents issued in the order in which the proper documents are completed, except in cases in which the claims so nearly resemble those undergoing examination, as to render an interference probable ; in which case they will be taken up and examined with the cases then under examination.

A decision deliberately made and affirmed by one Commissioner, cannot be disturbed by his successor. Some years since the evils arising from such revisions became so apparent and embarrassing, that a positive rule to that effect was adopted. It was submitted to, and approved by, the President of the United States.

This office, therefore, cannot, except under extraordinary circumstances, disturb decisions so reëffirmed, but must refer all who consider themselves aggrieved to their remedy by appeal; for instructions with regard to which, or withdrawal, see Sec. VI., par. 3 and 4. For instructions relative to interfering applications, Sec. VI., par. 5.

A *defective* specification or drawing may be amended at any time before a patent has issued; in which case the applicant will be required to make oath anew. In case papers are withdrawn from the office for alteration or amendment before examination, the application will take its turn for examination as a *new case* filed on the day of the reception of the altered or amended papers.

In case specifications and drawings should be found defective, they are returned to the applicant, with instructions to amend. When returned to the office, they are again examined, the examination in such cases taking precedence of all new cases on hand at the time of their reception. But if, on such examination, it should be found that the instructions to amend have been disregarded, or not properly attended to, the papers are again returned to the applicant, and, upon their second return to the office, the examination of such papers is delayed until all the business on hand at the time of their reception is disposed of.

When papers are thus returned to applicants for amendment, should they find it necessary, or deem it important, to prepare new documents, in order to make suitable amendments, *the original papers must be returned to the office together with the amended or new papers*, otherwise examination upon such cases will be delayed until the original papers are received by the office.

After an application has been examined, no alteration made in the character of the invention can be considered under the same fee. Any such alteration requires a new fee, papers, &c., before examination can be had.

In general, if any addition is to be made to an invention

duly before the office, or any change in its character, the applicant must withdraw and file his application anew.

The personal attendance of an applicant at the Patent Office is unnecessary. The business can be done by corresponding, or by attorney. All explanations and suggestions in relation to pending, and to all other cases, should be in writing, addressed to the Commissioner: correspondence with the Examiners or other subordinates is strictly prohibited.

When an application has been *finally decided*, the office will retain the original papers, allowing the applicant to obtain copies thereof.

§ VI. OF THE RESULTS OF AN EXAMINATION.

1st. *If the claim or claims be allowed.*—If a patent issues, it is transmitted to the inventor or his agent. If to the latter, he must have filed a full power of attorney, authorizing him to receive it. In case an assignment be made of the entire patent right, the patent will be sent to the assignee or his attorney.

2d. *If the claim be rejected.*—In cases of rejection, such references are made in the official communication as, in the opinion of the office, justify its decision. If the applicant is satisfied with the grounds of rejection, he may withdraw his application; if, on the contrary, he still deems himself entitled to a patent, he can request a reconsideration of the case, provided the references and arguments relied upon by the office as grounds of rejection have been carefully considered by him; and explanations, whether verbal or in writing, based upon the inapplicability of the one, or the unsoundness of the other, may be received at any convenient time. These are the only grounds upon which an application can be reconsidered, and this final action in the case cannot be had until it comes up in its turn as a case presented anew. If the applicant is still dissatisfied, he can appeal from the decision of the Commissioner, as prescribed by law.

3d. *Of the withdrawal.*—When either an American or foreign application is rejected, and the applicant relinquishes his claim, and desires to avail himself of the provisions of the 7th section of the act of 1836, and the 12th section of the act of 1837, he must petition the Commissioner of Patents, stating the abandonment of his application, in which case two thirds of the original fee will be returned. The model and papers are retained by the office, and if the latter have been withdrawn for correction, or for any other purpose, they must be returned to their files before a withdrawal of two thirds of the fee can be allowed. No money is, however, refunded on the withdrawal of an application, after an appeal has been taken from the decision of the Commissioner: nor any part of the fees received on filing caveats, or applications for additional improvements, or for reissues, or for extensions, or for designs.

In withdrawing an application the following forms may be followed :

To the Commissioner of Patents :

SIR : I hereby withdraw my application for a patent for improvements in the cotton-gin, now in your office, and request that twenty dollars may be returned to me agreeably to the provision of the act of Congress authorizing such withdrawal.

ELI WHITNEY.

Cabotville, Mass., July 16, 1849.

Received of the Treasurer of the United States, per Thomas Ewbank, Commissioner of Patents, twenty dollars, being the amount refunded on withdrawing my application for a patent for improvements in the cotton-gin.

ELI WHITNEY.

Cabotville, Mass., July 16, 1849.

As the law does not allow public moneys to be paid in *bank bills* or by *draft on banks*, particular instructions should

be given by the person withdrawing as to the manner in which the money shall be paid, *i. e.*, whether to his order at this office, or remitted by mail, *in gold at his risk*. Money in *gold* and *silver* only is receivable and payable at this office.

4th. *Of appeal*. — When a patent is refused by the Commissioner, the applicant can have remedy by an “appeal to the Chief Justice of the District Court of the United States for the District of Columbia,” by giving notice thereof to the Commissioner, and filing in the Patent Office, within such time as the Commissioner shall appoint, his reasons of appeal, specially set forth in writing, and also paying into the Patent Office, to the credit of the patent fund, the sum of twenty-five dollars, in manner prescribed in Sec. XVIII.

“And it shall be the duty of said Chief Justice, on petition, to hear and determine all such appeals, and to revise such decisions in a summary way, on the evidence produced before the Commissioner, at such early and convenient time as he may appoint, first notifying the Commissioner of the time and place of hearing, whose duty it shall be to give notice thereof to all parties who appear to be interested therein, in such manner as said Judge shall prescribe. The Commissioner shall also lay before the said Judge all the original papers and evidence in the case, together with the grounds of his decision, fully set forth in writing, touching all the points involved by the reasons of appeal, to which the revision shall be confined. And at the request of any party interested, or at the desire of the Judge, the Commissioner, and the Examiners in the Patent Office, may be examined, under oath, in explanation of the principles of the machine, or other thing, for which a patent in such case is prayed [for]. And it shall be the duty of said Judge, after a hearing of any such case, to return all the papers to the Commissioner, with a certificate of his proceedings and decision, which shall be entered of record in the Patent Office; and such decision, so certified, shall

govern the further proceedings of the Commissioner in such case ; *Provided, however,* That no opinion or decision of the Judge in any such case shall preclude any person interested in favor [of] or against the validity of any patent which has been or may hereafter be granted, from the right to contest the same in any judicial court, in any action in which its validity may come in question."

In cases of appeal it has been decided by the said Chief Justice that the case must be dismissed, unless the " reasons of appeal " are filed in the Patent Office within the time prescribed by the Commissioner, and that no further reasons or argument in writing, or otherwise, and no answer to the grounds of the Commissioner's decision can be received, heard or considered, afterwards ; but that the appeal must be decided upon the papers filed in the Patent Office, and the written grounds of the Commissioner's decision. Notice of this decision is given because a practice somewhat different has heretofore prevailed.

In cases where patents are refused for any reasons whatever, either by the Commissioner of Patents, or by the Chief Justice of the United States Court for the District of Columbia, remedy can be had by bill in equity ; "and the court having cognizance thereof, on notice to adverse parties," (and when there shall be no adverse party, a copy of the bill shall be served upon the Commissioner of Patents, when the whole of the expenses of the proceedings shall be paid by the applicant, whether the final decision shall be in his favor or otherwise,) "and other due proceedings had, may adjudge and declare either the patent void in the whole or in part, or inoperative and invalid in any particular part or portion of the United States, according to the interest which the parties to such suit may possess in the patent or the inventions patented ; and may also adjudge that such applicant is entitled, according to the principles and provisions of this act, to have and receive a patent for his invention, as specified in his claim, or for any part

thereof, as the fact of priority of right or invention shall, in any such case, be made to appear. And such adjudication, if it be in favor of the right of such applicant, shall authorize the Commissioner to issue such patent, on his filing a copy of the adjudication, and otherwise complying with the requisitions of this act: *Provided, however,* That no such judgment or adjudication shall affect the rights of any person, except the parties to the action, and those deriving title from or under them, subsequent to the rendition of such judgment."

It has recently been decided in the District Court of Eastern Pennsylvania, that all proceedings in equity against the Commissioner of Patents must be commenced and prosecuted in the courts of the District of Columbia; no court out of the District having jurisdiction over the subject-matter.

Before appealing from the decision of the Commissioner, the oath of invention must be renewed.

5th. *Of Interfering Applications.* — Whenever an application is presented for a patent, which, in the opinion of the Commissioner, would interfere with any other patent for which an application may be pending, or with any unexpired patent which shall have been granted, it shall be the duty of the Commissioner to give notice thereof to such applicants, or patentees, as the case may be; and if either shall be dissatisfied with the decision of the Commissioner on the question of priority of right or invention, on a hearing thereof he may appeal from such decision on like terms and conditions as are provided in the case of applications for inventions not new; and the like proceedings shall be had to determine which, or whether either, of the applicants is entitled to receive a patent as prayed for.

In contested cases, the following rules have been established for taking and transmitting evidence :

1st. That all statements, declarations, evidence, &c., shall be in writing, setting forth, minutely and particularly,

the point or points at issue, and shall be verified by oath or affirmation.

2d. That all statements, declarations, proofs, and evidence, shall be filed in the Patent Office by the parties, respectively, before the day of hearing.

3d. That before the deposition of a witness or witnesses be taken by either party, notice should be given to the opposite party of the time and place when and where such deposition or depositions will be taken; so that the opposite party, either in person or by attorney, shall have full opportunity to cross-examine the witness or witnesses. And such notice shall, *with proof of service of the same*, be attached to the deposition or depositions, whether the party cross-examine or not; and such notice shall be given in sufficient time for the appearance of the opposite party, and for the transmission of the evidence to the Patent Office before the day of hearing.

4th. That all evidence, &c., shall be sealed and addressed to the Commissioner of Patents, by the persons before whom it shall be taken, and so certified thereon.

5th. That the certificate of the magistrate, taking the evidence shall be substantially in the following form, and written upon the envelope, viz.:

"I hereby certify that the depositions of A B, C D, &c., relating to the matter of interference between E F and G H, were taken, sealed up, and addressed to the Commissioner of Patents by me.

A B, *Justice of the Peace.*"

6th. In cases of extension, where no opposition is made, ex parte testimony will be received from the applicant; and such testimony as may have been taken by the applicant, prior to notice of opposition, shall be received: *Provided*, The applicant shall give prompt notice to the opposing party or parties of the names and residences of the witnesses whose testimony has been thus taken.

7th. That no evidence, statement, or declaration, touch-

ing the matter at issue, will be *considered* upon the said day of hearing, which shall not have been taken and filed in compliance with these rules: *Provided*, That if either party shall be unable, for good and sufficient reasons, to procure the testimony of a witness or witnesses, within the stipulated time, then it shall be the duty of said party to give notice of the same to the Commissioner of Patents, accompanied by statements *under oath* of the cause of such inability—and of the *steps* which have been taken to procure said testimony; and of the *time* or *times* when efforts have been made to procure it; which last mentioned notice to the Commissioner shall be received by him previous to the day of hearing aforesaid.

§ VII. OF ADDITIONAL IMPROVEMENTS.

“Whenever the original patentee shall be desirous of adding the description and specification of any new improvement of the original invention or discovery, which shall have been invented or discovered by him subsequent to the date of his patent, he may, like proceedings being had in all respects as in the case of original applications, and on the payment of fifteen dollars, as hereinafter mentioned, have the same annexed to the original description and specification; and the Commissioner shall certify on the margin of such annexed description and specification, the time of its being annexed and recorded; and the same shall thereafter have the same effect in law, to all intents and purposes, as though it had been embraced in the original description and specification.

In all such cases the claim in the original patent is subject to a reëxamination: and if it shall appear that any part of the claim was not original at the time of granting the patent, a disclaimer of said part must be filed in the Patent Office, or the specification of claims restricted, by having the patent reissued before the improvement can be added. If the improvement cannot be added, it may, if

patentable, be secured by a separate patent, on the payment of the fee of thirty dollars. If the patent was granted before the 15th of December, 1836, a model and drawings of the invention, as first patented, verified by oath, must be furnished, unless dispensed with by the Commissioner.

FORM FOR ADDITION OF NEW IMPROVEMENTS.

To the Commissioner of Patents :

The petition of James Rumsey, of the county of Berkely, and State of Virginia,

Respectfully represents :

That your petitioner did obtain letters-patent of the United States for an improvement in the boilers of steam-engines, which letters-patent are dated on the first day of March, 1835; that he has, since that date, made certain improvements on his said invention; and that he is desirous of adding the subjoined description of his said improvements to his original letters-patent, agreeably to the provisions of the act of Congress in that case made and provided, he having paid fifteen dollars into the Treasury of the United States, and otherwise complied with the requirements of the said act.

JAMES RUMSEY.

§ VIII. OF DISCLAIMERS.

The 7th section of the law of 3d March, 1837, provides as follows :

“That whenever any patentee shall have, through inadvertence, accident, or mistake, made his specification of claim too broad, claiming more than that of which he was the original or first inventor, some material and substantial part of the thing patented being truly and justly his own, any such patentee, his administrators, executors, and assigns, whether of the whole or of a sectional interest therein, may make disclaimer of such parts of the thing patented as the disclaimant shall not claim to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; which disclaimer shall be in

writing, attested by one or more witnesses, and recorded in the Patent Office, on payment by the person disclaiming, in manner as other patent duties are required by law to be paid, of the sum of ten dollars. And such disclaimer shall thereafter be taken and considered as part of the original specification, to the extent of the interest which shall be possessed in the patent or right secured thereby, by the disclaimant, and by those claiming by or under him, subsequent to the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as it may relate to the question of unreasonable neglect or delay in filing the same."

In case of patents granted before the 15th December, 1836, no disclaimer will be admitted for record until a model and drawings of the invention, as originally patented, verified by oath, shall have been deposited, unless dispensed with by the Commissioner.

FORM OF DISCLAIMER.

To the Commissioner of Patents:

The petition of Eliphalet Nott, of Schenectady, in the county of Schenectady, and State of New York,

Respectfully represents:

That he has by assignment, duly recorded in the Patent Office, become the owner of a right for the several States of Massachusetts, Connecticut and Rhode Island, to certain improvements in the steam-engine, for which letters-patent of the United States were granted to Jacob Perkins, of Boston, in the State of Massachusetts, dated on the first day of March, 1835. That he has reason to believe that, through inadvertence and mistake, the claim made in the specification of said letters-patent is too broad, including that of which the said patentee was not the first inventor. Your petitioner, therefore, hereby enters his disclaimer to that part of the claim in the aforementioned specification which is in the following words, to wit: "I also claim the particular manner in which the piston of the above described engine is constructed, so as to insure the close fitting of the packing thereof to the cylinder, as set forth;" which disclaimer is to operate to the extent of the interest in said letters-patent vested in

your petitioner, who has paid ten dollars into the Treasury of the United States, agreeably to the requirements of the act of Congress in that case made and provided.

ELIPHALET NOTT.

Witness, JOHN PRINCE.

When the disclaimer is made by the original patentee, it must, of course, be so worded as to express that fact.

§ IX. OF RE-ISSUES.

When an applicant wishes to cancel an old patent, and to correct a mistake or error which has arisen from inadvertence, he should state this fact in his application, and expressly *surrender* the old patent, which must be transmitted to the Patent Office before a new patent will be issued. And no improvement or alteration, made subsequently to the filing of the application upon which the original patent was granted, can be introduced into a patent upon reissue. Section 13, of the act of July, 1836, enacts: "That whenever any patent, which has heretofore been granted, or which shall hereafter be granted, shall be inoperative or invalid, by reason of a defective or insufficient description or specification, or by reason of the patentee claiming, in his specification, as his own invention, more than he had or shall have a right to claim as new, if the error has or shall have arisen by inadvertence, accident or mistake, and without any fraudulent or deceptive intention, it shall be lawful for the Commissioner, upon the surrender to him of such patent, and the payment of the further duty of fifteen dollars, to cause a new patent to be issued to the said inventor for the same invention for the residue of the period, then unexpired, for which the original patent was granted, in accordance with the patentee's corrected description and specification."

In a reissue the claim is subject to reexamination, and if it shall appear that any part was not original, at the time of granting the patent, the reissue will not be granted, unless said part be omitted, or a disclaimer filed in the

Patent Office. If nothing can be claimed, the reissue cannot be granted, nor the surrendered patent returned. Where the patent was granted before the 15th of December, 1836, a model and drawings of the invention, as originally patented, verified by oath, must be deposited in the Patent Office before a reissue can be granted, unless dispensed with by the Commissioner: and when the original patent has been lost, before a reissue can be granted, the original patent should first be restored, and then surrendered.

In case of the death of an inventor, or of any assignment of the original patent made by him, a similar right vests in his executors, administrators, or assignees; and the patent so reissued, together with the corrected description and specification, have the same effect and operation in law on the trial of all actions thereafter commenced for causes subsequently accruing, as though the same had been originally filed in such corrected form before the issuing of the original patent.

On a surrender, several patents may be issued for distinct and separate parts of the invention, upon the payment of thirty dollars for each.

FORM OF SURRENDER OF A PATENT FOR RE-ISSUE.

To the Commissioner of Patents:

The petition of Samuel Morey, of Philadelphia, in the county of Philadelphia, and State of Pennsylvania,

Respectfully represents:

That he did obtain letters-patent of the United States for an improvement in the boilers of steam engines, which letters-patent are dated on the first day of March, 1835. That he now believes that the same is inoperative and invalid, by reason of a defective specification, which defect has arisen from inadvertence and mistake. He therefore prays that he may be allowed to surrender, and he hereby does surrender, the same, and request that new letters-patent may issue to him for the same invention, for the residue of the period for which the original patent was granted, under the amended specification herewith presented; he

having paid fifteen dollars into the Treasury of the United States, agreeably to the requirements of the act of Congress in that case made and provided.

SAMUEL MOREY.

§ X. OF EXTENSIONS.

Section eighteen of the act of 1836 enacts, "That whenever any patentee of an invention or discovery shall desire an extension of his patent beyond the term of its limitation, he may make application therefor, in writing, to the Commissioner of the Patent Office, setting forth the grounds therefor; and the Commissioner shall, on the applicant's paying the sum of forty dollars to the credit of the Treasury, as in the case of the original application for a patent, cause to be published in one or more of the principal newspapers in the city of Washington, and in such other paper or papers as he may deem proper, published in the section of the country most interested adversely to the extension of the patent, a notice of such application, and of the time and place when and where the same will be considered, that any person may appear and show cause why the extension should not be granted." The patentee shall furnish a statement in writing, under oath, of the ascertained value of the invention, and of his receipts and expenditures, sufficiently in detail to exhibit a true and faithful account of loss and profit in any manner accruing to him from and by reason of said invention. And if, upon a hearing of the matter, it shall appear to the full and entire satisfaction of the Commissioner, having due regard to the public interest therein, that it is just and proper that the term of a patent should be extended, by reason of the patentee, without neglect or fault on his part, having failed to obtain, from the use and sale of his invention, a reasonable remuneration for the time, ingenuity, and expense bestowed upon the same, and the introduction thereof into use, it shall be the duty of the Commissioner to renew and extend the patent, by making a certificate thereon of such extension, for the term of seven

years from and after the expiration of the first term ; which certificate shall be entered on record in the Patent Office ; and thereupon the said patent shall have the same effect in law as though it had been originally granted for the term of twenty-one years ; and the benefit of such extension shall accrue to assignees and grantees of the right to use the thing patented to the extent of their respective interests therein : *Provided, however,* that no extension of a patent shall be granted, after the expiration of the term for which it was originally issued.

By the first section of the act of May 27, 1848, it is provided " that the power to extend patents, now vested in the board composed of the Secretary of State, Commissioner of Patents, and Solicitor of the Treasury, by the eighteenth section of the act approved July fourth, eighteen hundred and thirty-six, respecting the Patent Office, shall hereafter be vested solely in the Commissioner of Patents ; and when an application is made to him for the extension of a patent, according to said eighteenth section, and sixty days' notice given thereof, he shall refer the case to the principal examiner having charge of the class of inventions to which said case belongs, who shall make a full report to said Commissioner of the said case, and particularly whether the invention or improvement secured in the patent was new and patentable when patented ; and thereupon the said Commissioner shall grant or refuse the extension of said patent upon the same principles and rules that have governed said board ; but no patent shall be extended for a longer term than seven years."

The following suggestions and rules have been adopted for the benefit of those persons who may hereafter apply for extensions.

The questions which arise on each application for an extension are :

1. Is the invention *novel* ?
2. Is it *useful* ?

3. Is it *valuable* and *important* to the public?
4. Has the inventor been *adequately remunerated* for his time and expenses in originating and perfecting it?
5. Has he used due diligence in introducing his invention into general use?

To enable the Commissioner to come to a correct conclusion in regard to the third point of inquiry, the applicant should procure the testimony of persons not interested in the invention, which testimony should be taken under oath.

In regard to the fourth and fifth points of inquiry, in addition to his own oath showing his receipts and expenditures on account of the invention, by which his profit or loss is to be ascertained, the applicant should show, by the testimony of disinterested witnesses on oath, that he has taken all reasonable measures to introduce his invention into general use, and that, without default or neglect on his part, he has failed to obtain from the use and sale of the invention a reasonable remuneration for the time, ingenuity, and expense bestowed on the same, and the introduction thereof into use.

The law now requiring that a notice of sixty days shall be given of each application for extension, it will be necessary for the applicant to file his petition, and pay the requisite fee, at least three months before his patent expires.

Persons opposing the extension of a patent, must file in the Patent Office their reasons, specifically set forth in writing, twenty days before the day of hearing.

In case of opposition by any person to the extension of a patent, both parties may take testimony, each giving reasonable notice to the other of the time and place of taking said testimony, which shall be taken according to the rules prescribed by the Commissioner of Patents in case of interference.

All arguments submitted to the Commissioner must be in writing.

The report of the examiner, now required by law to be

made to the undersigned, will, if practicable, be ready fifteen days before the day appointed for the hearing. And, in order that the examiner may have ample time to make his report, the patent, together with all the testimony and arguments, should be filed in the office at least twenty days before the day of hearing.

If the applicant fails to furnish the undersigned with a statement, *in detail*, of his receipts and expenditures, as required by the 18th section of the act approved July 4, 1836, his application must be rejected. His attention, therefore, is particularly called to this point, as many fail to accompany their petitions with any statement of receipts and expenditures.

If a patent has expired before application for extension is made, or if such application is made *within* the sixty days' notice now required by law, the office can afford the inventor no relief. If he desires a *renewal* of his patent, his remedy is to be found only in a special act of Congress.

§ XL. OF DESIGNS.

The 3d section of the act of 1842, without repealing or changing the law under which patents have heretofore been granted, enacts: "That any citizen or citizens, or alien or aliens, having resided one year in the United States, and taken the oath of his or their intention to become a citizen or citizens, who by his, her, or their own industry, genius, efforts, and expense, may have invented or produced any new and original design for a manufacture, whether of metal or other material or materials, or any new and original design for the printing of woollen, silk, cotton, or other fabrics, or any new and original design for a bust, statue, or bas relief, or composition in alto and basso relievo, or any new and original impression or ornament, or to be placed on any article of manufacture, the same being formed in marble or other material, or any new and useful pattern, or print, or picture, to be either worked into, or worked on, or printed,

or painted, or cast, or otherwise fixed on any article of manufacture, or any new and original shape or configuration of any article of manufacture not known or used by others before his, her, or their invention or production thereof, and prior to the time of his, her, or their application for a patent therefor, and who shall desire to obtain an exclusive property or right therein, to make, use, and sell, and vend the same, or copies of the same, to others, by them to be made, used, and sold, may make application in writing to the Commissioner of Patents, expressing such desire, and the Commissioner, on due proceedings had, may grant a patent therefor, as in the case now of application for a patent: *Provided*, that the fee in such cases, which by the now existing laws would be required of the particular applicant, shall be one-half the sum, (i. e., fifteen dollars,) and that the duration of said patent shall be seven years; and that all the regulations and provisions which now apply to the obtaining or protection of patents, not inconsistent with the provisions of this act, shall apply to applications under this section."

It will be perceived, from the above, that the law extends protection to a new class of objects, and that this is merely *additional* to previous acts.

In making an application to secure a design, the same course of proceedings is required as in applying for an invention. The petition, specification, and oath, executed as prescribed below, must be filed, and the specimen and duplicate drawings deposited. In case of rejection, no part of the fee for designs is refunded.

FORM OF APPLICATION FOR PATENTS FOR DESIGNS.

To the Commissioner of Patents:

The petition of Benjamin West, of the city and county of Philadelphia,
and State of Pennsylvania,

Respectfully represents:

That your petitioner has invented or produced [a new and original design for a composition in alto relievo] which he verily believes has

not been known prior to the production thereof by your petitioner. He therefore prays that letters-patent of the United States may be granted to him therefor, vesting in him and his legal representatives the exclusive right to the same, upon the terms and conditions expressed in the act of Congress in that case made and provided; he having paid fifteen dollars into the Treasury, and complied with the other provisions of the said act.

BENJAMIN WEST.

FORM OF SPECIFICATION.

To all whom it may concern:

Be it known, that I, Benjamin West, of the city of Philadelphia, in the county of Philadelphia, and State of Pennsylvania, have invented or produced a new and original design for a composition in alto relievo, and I do hereby declare that the following is a full and exact description of the same. [Here follows a description of the design with reference to the specimen or drawing, the specification to conclude with declaring what the inventor claims, in terms characteristic of the design, &c.]

BENJAMIN WEST.

Witnesses,

NOAH WEBSTER, }
NATHANIEL BOWDITCH. }

FORM OF OATH.

City and County of Philadelphia, }
State of Pennsylvania, } ss.

On this day of , 185 , before the subscriber, a , personally appeared the within named Benjamin West, and made solemn oath [or affirmation, as the case may be] that he verily believes himself to be the original and first inventor or producer of the design for a composition in alto relievo, and that he does not know or believe that the same was ever before known or used, and that he is a citizen of the United States.

Signed, B. A.

§ XII. OF FOREIGN PATENTS.

A patent may be taken out by the inventor in a foreign country without affecting his right to a patent in the United States, provided the invention has not been introduced into public and common use in the United States prior to the application. In every such case the patent is limited to

fourteen years from the date of the foreign letters-patent. The introducer, *as such*, of a new invention from a foreign country, is not entitled to letters-patent. If an alien neglects to put and continue on public sale the invention in the United States, on reasonable terms, for eighteen months, he loses all benefit of the patent.

Applications for inventions *patented* in a foreign country will be taken up for examination immediately after all the necessary papers and drawings have been filed, the fee paid, and the model deposited. As the letters-patent issued in this country for inventions patented abroad bear date with the foreign letters-patent, this rule has been adopted with the view of giving the longest term to the patent in this country. No invention will be considered as patented in a foreign country, unless the specification has been enrolled, and the patent in all respects complete.

For a similar reason, applications for the surrender and reissue of letters-patent, and for additional improvements to be added to original letters-patent, will be examined immediately after they shall have been completed.

§ XIII. OF CAVEATS.

The 12th section of the act of 1836 provides : "That any citizen of the United States, or alien who shall have been a resident of the United States one year, next preceding, and shall have made oath of his intention to become a citizen thereof, who shall have invented any new art, machine, or improvement thereof, who shall desire further time to mature the same, may, on paying to the credit of the Treasury the sum of twenty dollars, file in the Patent Office a caveat, setting forth the design and purpose thereof, and its principal and distinguishing characteristics, and praying protection of his rights, till he shall have matured his invention ; which sum of twenty dollars, in case the person filing such caveat shall afterwards take out a patent for the invention therein mentioned, shall be considered a part of the sum herein re-

quired for the same. And such caveat shall be filed in the confidential archives of the office, and preserved in secrecy. And if application shall be made by any other person, within one year from the time of filing such caveat, for a patent of any invention, with which it may in any respect interfere, it shall be the duty of the Commissioner to deposit the description, specifications, drawings, and model, in the confidential archives of the office, and to give notice (by mail) to the person filing the caveat of such application, who shall within three months after receiving the notice, if he would avail himself of the benefit of his caveat, file his description, specifications, drawings, and models; and if, in the opinion of the Commissioner, the specifications of claim interfere with each other, like proceedings may be had in all respects as are in this act provided in the case of interfering applications."

"Whenever the applicant shall request it, the patent shall take date from the time of filing the specifications and drawings, not, however, exceeding six months prior to the actual issuing of the patent; and, on like request, and the payment of the duty herein required, by any applicant, his specification and drawings shall be filed in the secret archives of the office, until he shall furnish the model, and the patent be issued, not exceeding the term of one year; the applicant being entitled to notice of interfering applications."

Caveats may be renewed yearly by payment of a new fee of \$20; but the protection afforded by a caveat is against only such applications as are filed within the year from the time of filing the caveat.

A full description of the invention is required, to enable the Commissioner of Patents to judge of interferences.

The law makes no provision for the filing of caveats by *foreigners*.

For the information of caveators, the following rules have been adopted:

1. Caveat papers cannot, under *any circumstances*, be

withdrawn from the office, nor undergo any alteration, after they have been once filed.

2. Additional papers relating to *the invention* may be admitted under the same file, the date of reception of such papers being noted.

3. In case of filing papers additional to an original caveat, the right to notice of such papers expires with the caveat; and any additional papers, not relating to the invention as first caveated, are not entitled to notice.

4. Caveat papers once filed cannot be inspected by the caveator, except in presence of a sworn officer, nor by any other persons than those duly authorized by law to examine such papers.

5. The caveator, or other person properly authorized by him, may at any time obtain copies of the caveat papers at the usual rates.

6. It is desirable that caveats should be explicit as to the character and features of the invention—embrace suitable drawings or sketches, and a model if convenient. The caveat fails of its purpose when the invention is not sufficiently explained.

FORM OF CAVEAT.

To the Commissioner of Patents :

The petition of Amos Whittemore, of the city and county of New York, and State of New York,

Respectfully represents :

That he has made certain improvements in the machine for making wool cards, and that he is now engaged in making experiments for the purpose of perfecting the same, preparatory to his applying for letters-patent therefor. He therefore prays that the subjoined description of his invention may be filed as a CAVEAT, in the confidential archives of the Patent Office, agreeably to the provisions of the act of Congress in that case made and provided; he having paid twenty dollars into the Treasury of the United States, and otherwise complied with the requirements of the said act.

AMOS WHITTEMORE.

New York, July 16, 1849.

Here should follow a description of the general principles of the invention, so far as it has been completed.

§ XIV. OF THE DURATION OF PATENTS, AND THE PENALTY FOR ILLEGALLY STAMPING ARTICLES.

The term for which a regular patent is granted is *fourteen years*; but it may, under certain circumstances, be extended for seven years, as hereinbefore mentioned. Patents for designs are granted for *seven years* only.

Stamping or affixing the name of any patentee on any article, without authority so to do, or affixing the word *patent*, or *letters-patent*, or the stamp, mark, or device of any patentee, on any unpatented article, is forbidden under a penalty of not less than one hundred dollars.

Patentees or their assignees are required to affix the date of the patent on each article vended or offered for sale, under a like penalty—thus affording to the public notice of the duration of the patent. When the article is of such a nature that the name of the patentee cannot be printed thereon, it should be affixed to the case or package containing it.

§ XV. OF THE RE-PAYMENT OF MONEY DEPOSITED BY MISTAKE.

The 1st section of the act of 1842 authorizes the treasurer of the United States to pay back any money which has been paid into the treasury by actual mistake, as for patent fees, thus precluding the necessity of special application to Congress for relief, and is in the following words: that “the treasurer of the United States be, and he hereby is, authorized to pay back, out of the patent fund, any sum or sums of money, to any receiver or depository to the credit of the treasurer, as for fees accruing at the Patent Office through mistake, and which are not provided to be paid by existing laws, certificate thereof being made to said treasurer by the Commissioner of Patents.”

§ XVI. OF GRANTING ANEW LOST PATENTS, AND SUCH AS WERE DESTROYED BY THE FIRE OF 1836.

The 3d section of the act of March 3, 1837, provides :
 " That whenever it shall appear to the Commissioner that any patent was destroyed by the burning of the Patent Office building on the aforesaid fifteenth day of December, or was otherwise lost prior thereto, it shall be his duty, on application therefor by the patentee, or other person interested therein, to issue a new patent, for the same invention or discovery, bearing the date of the original patent, with his certificate thereon, that it was made and issued pursuant to the provisions of the 3d section of this act, and shall enter the same of record : *Provided, however,* that, before such patent shall be issued, the applicant therefor shall deposit in the Patent Office a duplicate, as near as may be, of the original model, drawings, and description, with specification of the invention or discovery, verified by oath, as shall be required by the Commissioner ; and such patent and copies of such drawings and descriptions, duly certified, shall be admissible as evidence in any judicial court of the United States, and shall protect the rights of the patentee, his administrators, heirs, and assigns, to the extent only in which they would have been protected by the original patent and specification."

The privilege of renewal of lost patents is now extended to those *granted* before the fire of December, 1836. Formerly it was limited to those actually *lost* before the fire, thus excluding many lost subsequently, and before they were recorded anew in this office, leaving the inventor without remedy.

FORM OF OATH ON RESTORING DRAWINGS, OR SKETCHES FROM WHICH DRAWINGS MAY BE MADE, TO REPLACE THE ORIGINALS DESTROYED IN THE OFFICE.

City and county of New York, } ss.
State of New York.

On the first day of March, 1838, before the subscriber, a

personally appeared, Robert Fulton, of the city of New York, and made solemn oath that he is the inventor [*or is interested in the invention as administrator, &c.,*] of an improved mode

for which letters-patent of the United States were granted to him, dated the day of and the annexed drawing [*or sketch*] is, as he verily believes, a true delineation of the invention described in the said letters-patent.

A. B.

N. B. *Patentees*, and the public in general, are urged to use their influence to aid the office in restoring the records of all patents and assignments on record before the fire in December, 1836. The same cannot be used in evidence unless *so recorded anew*. No expense is incurred. The papers are received and transmitted by mail free of postage.

§ XVII. OF ASSIGNMENTS.

An inventor can assign his entire right before a patent is obtained, so as to enable the assignee to take out a patent in his own name; but the assignment must be first entered of record; and the application therefor must be duly made, and the specification signed and sworn to by the inventor. In the case of an assignment by a foreigner, the same fee will be required as if the patent issued to the inventor.

The assignment of a patent may be of the whole or of an undivided part, "by any instrument in writing." All assignments, and also the grant or conveyance of the use of the patent in any town, county, state, or specified district, must be recorded in the Patent Office within three months from the date of the same. But assignments, if recorded after three months have expired, will be on record as notice to protect against subsequent purchasers. Grants and assignments, recorded prior to the 15th December, 1836, must be recorded anew before they can be valid as evidence of any title.

In all cases in which the entire invention has been assigned before the issue of the patent, the correspondence

should be in the name of the assignee, he being the party in interest.

By the act of May 27, 1848, the Commissioner of Patents is directed to charge fees for recording assignments, powers of attorney, licenses, &c., at the following rates, viz :

On all assignments, &c., which shall not contain over 300 words,	\$1 00
On all assignments, &c., containing more than 300 words and not more than 1000 words,	2 00
On all assignments, &c., containing more than 1000 words,	3 00

Which fees are, in all cases, *to be paid in advance, in specie.*

The receipt of assignments is never acknowledged by the office, but they are generally recorded in their turn, and transmitted to the persons entitled to them.

FORM OF ASSIGNMENT OF AN ENTIRE INVENTION, BEFORE
OBTAINING LETTERS-PATENT, AND TO BE RECORDED PRE-
PARATORY THERETO.

Whereas I, Jethro Wood, of Scipio, in the county of Cayuga, and State of New York, have invented certain new and useful improvements in ploughs, for which I am about to make application for letters-patent of the United States; and whereas David Peacock, of Burlington, New Jersey, has agreed to purchase from me all the right, title, and interest which I have, or may have, in and to the said invention, in consequence of the grant of letters-patent therefor, and has paid to me, the said Wood, the sum of five thousand dollars, the receipt of which is hereby acknowledged: Now, this indenture witnesseth, that for and in consideration of the said sum to me paid, I have assigned and transferred, and do hereby assign and transfer, to the said David Peacock, the full and exclusive right to all the improvements made by me, as fully set forth and described in the specification which I have prepared and executed, preparatory to the obtaining of letters-patent therefor. And I do hereby authorize and request the Commissioner of Patents to issue the said letters-patent to the said David Peacock, as the assignee of my whole right and title thereto, for the sole use and behoof of the said David Peacock and his legal representatives.

In testimony whereof, I have hereunto set my hand and affixed my seal this sixteenth day of July, 1849.

JETHRO WOOD, [L. s.]

Sealed and delivered in the presence of—

GEORGE CLYMER,

DAVID RITTENHOUSE.

FORM OF ASSIGNMENT OF A PARTIAL RIGHT IN A PATENT.

Whereas I, Jethro Wood, of Scipio, in the county of Cayuga, and State of New York, did obtain letters-patent of the United States for certain improvements in ploughs, which letters-patent bear date the first day of March, 1838; and whereas David Peacock, of Burlington, New Jersey, is desirous of acquiring an interest therein: now, this indenture witnesseth, that, for and in consideration of the sum of two thousand dollars, to me in hand paid, the receipt of which is hereby acknowledged, I have assigned, sold and set over, and do hereby assign, sell, and set over, unto the said David Peacock, all the right, title, and interest which I have in the said invention, as secured to me by said letters-patent, for, to, and in the several States of New York, New Jersey, and Pennsylvania, and in no other place or places. The same to be held and enjoyed by the said David Peacock, for his own use and behoof, and for the use and behoof of his legal representatives, to the full end of the term for which said letters-patent are or may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

In testimony whereof, I hereunto set my hand and affix my seal, this sixteenth day of July, 1849.

JETHRO WOOD, [L. s.]

Sealed and delivered in the presence of—

JACOB PERKINS,

BENJAMIN FRANKLIN.

§ XVIII. OF THE FEES—HOW PAYABLE.

All fees must be paid in SPECIE, and in advance, except those required for drawings and copies, the expense of which will be communicated on application for the same.

Every applicant, on presenting his petition or application, must pay into the Treasury of the United States, or into the Patent Office, or to any of the Assistant Treasurers, Treasurers of the Mint and Branch Mints, Collectors and

Surveyors of Customs, and Receivers of Public Money particularly named below, a deposit to the credit of the Treasurer, as follows :

If a citizen of the United States, as a patent fee,	\$30 00
If a foreigner, who has resided in the United States one year next preceding the application for a patent, and shall have made oath of his intention to become a citizen,	30 00
If a subject of the sovereign of Great Britain, .	500 00
All other foreigners,	300 00
On entering a caveat,	20 00
On entering an application for an appeal from the decision of the Commissioner,	25 00
On extending the patent beyond the fourteen years,	40 00
For adding to a patent the specifications of a subsequent improvement,	15 00
In case of reissues, for every additional patent,	30 00
On surrender of an old patent, to be reissued to correct a mistake of the patentee,	15 00
On application for a design,	15 00
For a disclaimer,	10 00
For copies of patents, or any other paper on file, for each 100 words,	10
On all assignments, &c., which shall not contain over 300 words,	1 00
On all assignments, &c., containing more than 300 and not more than 1000 words,	2 00
On all assignments, &c., containing more than 1000 words,	3 00
For copies of drawings, a reasonable sum, in proportion to the time occupied in making the same.	

Fees, when sent direct to the Commissioner in specie, should be firmly attached to the letter, to avoid the danger of loss from becoming loose, and wearing through the envelope.

It is recommended to make a deposit with an Assistant Treasurer, or other officer authorized to receive public moneys, of the fee for a patent or other application, and to remit the certificate. Where this cannot be done without much inconvenience, gold may be remitted by mail, at the risk of the applicant.

In case of deposit made with the Assistant Treasurers, or other persons authorized to receive public moneys, a *duplicate receipt* should be taken, stating by whom the payment was made, and for what object. The particular invention should be referred to, to enable the applicant to recover back the twenty dollars, in case of the withdrawal of the petition. The certificate of deposit may be made in the following form :

Office of the

The Treasurer of the United States has credit at this office for
 dollars in specie, deposited by , of the town of , in
 the county of , and State of , the same
 being for a patent [*or whatever the object may be*] for a steam boiler.
 A. B.

Officers who are authorized to receive Patent Fees on account of the Treasury of the United States, and to give receipts or certificates of deposit therefor, viz. :

Assistant Treasurer of the United States, Boston, Mass.
 Assistant Treasurer of the United States, New York, N. Y.
 Treasurer of the Mint, Philadelphia, Penn.
 Surveyor and Inspector, Pittsburg, Penn.
 Assistant Treasurer of the United States, Charleston, S. C.
 Collector, Baltimore, Md.
 Collector, Richmond, Va.
 Collector, Norfolk, Va.
 Collector, Buffalo Creek, N. Y.
 Collector, Wilmington, N. C.
 Collector, Savannah, Ga.
 Collector, Mobile, Ala.
 Treasurer Branch Mint, New Orleans, La.

Assistant Treasurer United States, St. Louis, Mo.
Surveyor of the Customs, Nashville, Tenn.
Surveyor of the Customs, Cincinnati, Ohio.
Receiver of Public Moneys, Little Rock, Ark.
Receiver of Public Moneys, Jeffersonville, Ind.
Receiver of Public Moneys, Chicago, Ill.
Receiver of Public Moneys, Detroit, Mich.

Any person wishing to pay a Patent Fee may deposit it with either of the officers above named, and forward the receipt or certificate to this office, as evidence thereof.

Money sent by mail is at the risk of the person sending the same. And all money sent from the office, by mail, is at the risk of the person requesting to have it transmitted in that way. In no case should money be sent inclosed with models.

§ XIX. OF PATENT AGENTS.

There is, in this and other cities, a class of persons denominated "Patent Agents," or "Patent Attorneys," whose occupation is to offer advice and render assistance to individuals having business with the office. From certain information which has come to the knowledge of the Commissioner, it is deemed necessary to observe, that, whatever may be said to the contrary, no greater facilities are extended to them than to the inventor who makes his own application. The rules and regulations contained in this pamphlet are as much for their guidance as for the direction of the applicant himself, and as strict a compliance with them is required of one as of the other. Personal influence avails neither. Patents are granted or rejected upon the merits of the cases presented; and there are no circumstances which can, with the knowledge of the undersigned, be brought to bear, to turn the office from the strictest impartiality.

To relieve applicants from the expense of employing

agents, the examiners will decide questions of novelty and patentability upon papers imperfectly prepared, if sufficiently perspicuous to be understood, *when such papers are prepared by the inventor himself*. But if an agent be employed, it is presumed that he is qualified for the business he has undertaken without calling on the office for instructions.

Inventors desirous of examining models before making application, should apply to the Commissioner, or chief clerk, who will direct the machinist to aid them in all necessary inquiries. This caution is given to save applicants from impositions to which they are exposed. If the services of patent agents are desired, able and faithful ones can be found *at their offices* in this and other cities.

Patent agents who have filed a full power of attorney, authorizing them to receive letters-patent for the patentees, will be allowed to take them from the office, after which they cannot be returned, with a view to be transmitted to the inventor under the frank of the Commissioner. If agents retain the patents of their clients in their possession after they have been issued, it is a private matter between the patentee and his attorney, with which the office has nothing to do.

It is hardly necessary to state that no fees are received in this office except those provided for by law, and that no offers of sums of money, or payment of the same to third parties, can influence the decision upon a case, or hasten the period of its examination.

§ XX. OF CORRESPONDENCE.

In answer to an inquiry addressed to the First Assistant Postmaster General, touching mailable matter, the following letter has been received :

“ POST-OFFICE DEPARTMENT, CONTRACT OFFICE, }
AUGUST 30, 1849. }

“ TO THOMAS EWBANK, ESQ., *Commissioner of Patents*.

Sir, — I hasten to say, in answer to your inquiry of

to-day, that what may be sent by mail is specified by acts of Congress to be letters, letters enclosing money, newspapers, magazines, pamphlets, and all other written or printed matter, whereof each copy or number shall not exceed eight ounces, packages thereof not exceeding three pounds in weight; public documents printed by order of either house of Congress; and books and documents interchanged between the Executives of States. *Neither models of machines, nor the substances of which they are usually composed, — wood, glass, tin, or other metals, — are entitled, by law or regulation, to transmission in the mail; and the mailing and forwarding of them will be refused in every instance where the required care is taken at the post-office to exclude unmailable matter.*

“Respectfully, your obedient servant,
“ S. R. HOBBIE,
“ *First Assistant Postmaster General.*”

All communications relating to official transactions should be addressed to the Commissioner of Patents; no other can receive attention; and it must not be regarded as discourteous if private letters to employees in office are returned without reply; nor must correspondents complain, even if their letters are properly addressed to the Commissioner, if their business receives no attention from the office, when their *signatures are so illegibly written* as to render it impossible to decipher them, or when the *post-office* and State (or either of them) are omitted in their address.

No double correspondence can be sanctioned. When an inventor employs an agent, the office will correspond with either, but not with both. This remark is necessary from the numerous letters received from applicants asking for information of what their attorneys have done, and often protesting against their acts.

Telegraphic communications, if not received before 3 P. M., cannot be answered till the following day; the greater

part arrive after the office has been closed. Moreover, *signatures* are sometimes so illegibly written that telegraphic operators misinterpret them, and the office is consequently at a loss properly to translate them.

§ XXI. PATENT OFFICE REPORTS.

These are generally submitted to Congress in January, and comprehend the transactions of the office during the preceding year; but, from causes over which this bureau has no control, they are seldom printed until the current year has nearly expired. In the mean time, letters are constantly being received from citizens of every profession and section of the Union, asking for copies, under the mistaken idea that their distribution is under the control of the office. So far from this being the fact, a very limited number only is placed by Congress at its disposal; e. g., of the report for 1847, ONE HUNDRED AND THIRTY-FIVE THOUSAND COPIES were printed, of which THREE THOUSAND were appropriated to the Patent Office. The remaining one hundred and thirty-two thousand were subject to the orders and disposal of members of Congress. Of the report for 1848, SEVENTY-FIVE THOUSAND were ordered; of these, TWENTY-FIVE HUNDRED were sent to this bureau, and of them ONLY FIVE HUNDRED had the *list of patents and claims* annexed.

It will be perceived that the office does not receive HALF the number inventors and patentees call for; and, as far as possible, it is deemed right first to supply them. Persons, therefore, desiring reports should distinctly state the grounds upon which their requests are preferred. If it shall appear that they have contributed to the support of the office by the payment of fees, or to the information contained in the agricultural report, their names will be entered upon a list kept for that purpose, and when the document is ready for distribution, copies will be sent to their address in the order of their applications. With few exceptions, the office is com-

pelled to refer other citizens to the members of Congress from their districts.

THOMAS EWBANK,
Commissioner of Patents.

PATENT OFFICE, *February* 11, 1851.

REQUEST.

Congress having authorized the collection and distribution of seeds through this office, a transmission to this place of any rare and useful seeds may confer a great benefit on the community, and will, so far as practicable, be reciprocated by the Commissioner. A history of the seed transmitted, together with the place of production, is respectfully solicited.

LAWS OF THE UNITED STATES

RELATING TO

PATENTS AND THE PATENT OFFICE.



LAWS OF THE UNITED STATES RELATING TO PATENTS AND THE PATENT OFFICE.

CONSTITUTION OF THE UNITED STATES.

ARTICLE FIRST, SECTION EIGHTH.

“The Congress shall have power, &c., to promote the progress of science and useful arts, by securing for limited times to Authors and Inventors the exclusive right to their respective writings and discoveries.” Also, “to make all laws which shall be necessary and proper for carrying into execution the foregoing powers.”

CHAP. VII. — AN ACT to promote the progress of useful arts.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That upon the petition of any person or persons to the Secretary of State, the Secretary for the department of War, and the Attorney General of the United States, setting forth, that he, she, or they, hath or have invented or discovered any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used, and praying that a patent may be granted therefor, it shall and may be lawful to and for the said Secretary of State, the Secretary for the department of War, and the Attorney General, or any two of them, if they shall deem the invention or

Patents for useful discoveries, how applied for, and granted.

Repealed by the act of 21st February, 1793, ch. 11.

The Secretary of State, the Secretary of War, and the Attorney General, or any two of them, if they shall deem the invention, &c., useful and important, to cause letters-patent to be issued.

Continu-
ance of a pa-
tent.

Attorney
Gen'l to cer-
tify the con-
formity of
the patent
with this act.

Patents to
be recorded.

Specifica-
tion in writ-
ing, with a
draft or mod-
el thereof, to
be delivered
and filed in
the office of
the Secreta-
ry of State.

discovery sufficiently useful and important, to cause letters-patent to be made out in the name of the United States, to bear teste by the President of the United States, reciting the allegations and suggestions of the said petition, and describing the said invention or discovery, clearly, truly, and fully, and thereupon granting to such petitioner or petitioners, his, her or their heirs, administrators or assigns, for any term not exceeding fourteen years, the sole and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention or discovery; which letters-patent shall be delivered to the Attorney General of the United States to be examined, who shall, within fifteen days next after the delivery to him, if he shall find the same conformable to this act, certify it to be so at the foot thereof, and present the letters-patent so certified to the President, who shall cause the seal of the United States to be thereto affixed, and the same shall be good and available to the grantee or grantees by force of this act, to all and every intent and purpose herein contained; and shall be recorded in a book to be kept for that purpose in the office of the Secretary of State, and delivered to the patentee or his agent, and the delivery thereof shall be entered on the record and endorsed on the patent by the said Secretary at the time of granting the same.

SEC. 2. *And be it further enacted*, That the grantee or grantees of each patent shall, at the time of granting the same, deliver to the Secretary of State a specification in writing, containing a description, accompanied with drafts or models, and explanations and models, (if the nature of the invention or discovery will admit of a model,) of

the thing or things by him or them invented or discovered, and described as aforesaid, in the said patents; which specification shall be so particular, and said models so exact, as not only to distinguish the invention or discovery from other things before known and used, but also to enable a workman, or other person skilled in the art or manufacture whereof it is a branch, or wherewith it may be nearest connected, to make, construct, or use the same, to the end that the public may have the full benefit thereof, after the expiration of the patent term; which specification shall be filed in the office of the said Secretary, and certified copies thereof shall be competent evidence in all courts and before all jurisdictions, where any matter or thing, touching or concerning such patent, right, or privilege, shall come in question.

Certified
copies, in
what cases to
be evidence.

SEC. 3. *And be it further enacted*, That upon the application of any person to the Secretary of State, for a copy of any such specification, and for permission to have similar model or models made, it shall be the duty of the Secretary to give such copy, and to permit the person so applying for a similar model or models to take, or make or cause the same to be taken or made, at the expense of such applicant.

Copies of
specification
and models
may be taken.

SEC. 4. *And be it further enacted*, That if any person or persons shall devise, make, construct, use, employ, or vend within these United States, any art, manufacture, engine, machine, or device, or any invention or improvement upon or in any art, manufacture, engine, machine, or device, the sole and exclusive right of which shall be so as aforesaid granted by patent to any person or persons, by virtue and in pursuance of this act, without the consent of the patentee, or patentees, their

Penalty for
making, &c.,
any art, &c.,
for which a
patent has
been granted.

Damages to
be assessed
by a jury.

executors, administrators or assigns, first had and obtained in writing, every person so offending shall forfeit and pay to the said patentee or patentees, his, her, or their executors, administrators or assigns, such damages as shall be assessed by a jury, and moreover shall forfeit to the person aggrieved the thing or things so devised, made, constructed, used, employed, or vended, contrary to the true intent of this act, which may be recovered in an action on the case founded on this act.

Patents surreptitiously
obtained.

SEC. 5. *And be it further enacted*, That upon oath or affirmation made before the judge of the district court, where the defendant resides, that any patent which shall be issued in pursuance of this act was obtained surreptitiously by or upon false suggestion, and motion made to the said court, within one year after issuing the said patent, but not afterwards, it shall and may be lawful to and for the judge of the said district court, if the matter alleged shall appear to him to be sufficient, to grant a rule that the patentee or patentees, his, her, or their executors, administrators or assigns, show cause why process should not issue against him, her, or them, to repeal such patents; and if sufficient cause shall not be shown to the contrary, the rule shall be made absolute, and thereupon the said judge shall order process to be issued as aforesaid, against such patentee or patentees, his, her, or their executors, administrators, or assigns. And in case no sufficient cause shall be shown to the contrary, or if it shall appear that the patentee was not the first and true inventor or discoverer, judgment shall be rendered by such court for the repeal of such patent or patents; and if the party at whose complaint the process issued shall have judgment given against

How to be
repealed.

him, he shall pay all such costs as the defendant shall be put to in defending the suit, to be taxed by the court, and recovered in such manner as costs expended by defendants shall be recovered in due course of law.

SEC. 6. *And be it further enacted*, That in all actions to be brought by such patentee or patentees, his, her, or their executors, administrators or assigns, for any penalty incurred by virtue of this act, the said patents or specifications shall be *primâ facie* evidence, that the said patentee or patentees was or were the first and true inventor or inventors, discoverer or discoverers, of the thing so specified, and that the same is truly specified; but that nevertheless the defendant or defendants may plead the general issue, and give this act, and any special matter whereof notice in writing shall have been given to the plaintiff, or his attorney, thirty days before the trial, in evidence, tending to prove that the specification filed by the plaintiff does not contain the whole of the truth concerning his invention or discovery; or that it contains more than is necessary to produce the effect described; and if the concealment of part, or the addition of more than is necessary, shall appear to have been intended to mislead, or shall actually mislead the public, so as the effect described cannot be produced by the means specified, then, and in such cases, the verdict and judgment shall be for the defendant.

In actions for penalty, patents to be deemed *primâ facie* evidence of the first discovery; but special matter may be given in evidence; and to what effect.

SEC. 7. *And be it further enacted*, That such patentee, as aforesaid, shall, before he receives his patent, pay the following fees to the several officers employed in making out and perfecting the same, to wit: For receiving and filing the petition, fifty cents; for filing specifications, per

Patent fees.

copy-sheet containing one hundred words, ten cents; for making out patent, two dollars; for affixing great seal, one dollar; for endorsing the day of delivering the same to the patentee, including all intermediate services, twenty cents.

Approved April 10, 1790.

CHAP. IX. — AN ACT to promote the progress of useful arts, and to repeal the act heretofore made for that purpose.

Act of 1790,
chap. 7.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That when any

Letters-pa-
tent, how
and by whom
made out.

Act of April
10, 1799, ch.
33, repealed.

person or persons, being a citizen or citizens of the United States, shall allege that he or they have invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used before the application, and shall present a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the same, and praying that a patent may be granted therefor, it shall and may be lawful for the said Secretary of State to cause letters-patent to be

To bear teste
by the Presi-
dent, and

made out in the name of the United States, bearing teste by the President of the United States, reciting the allegations and suggestions of the said petition, and giving a short description of the said invention or discovery, and thereupon granting to such petitioner, or petitioners, his, her, or their heirs, administrators or assigns, for a term not exceeding fourteen years, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention or discovery, which letters-patent shall be delivered to the Attorney General of the United States, to be examined; who, within fifteen days

be examined
by the Attor-
ney General.

after such delivery, if he finds the same conformable to this act, shall certify accordingly, at the foot thereof, and return the same to the Secretary of State, who shall present the letters-patent thus certified, to be signed, and shall cause the seal of the United States to be thereto affixed: and the same shall be good and available to the grantee or grantees, by force of this act, and shall be recorded in a book, to be kept for that purpose, in the office of the Secretary of State, and delivered to the patentee or his order.

1800, ch. 25.

SEC. 2. *Provided always, and be it further enacted*, That any person, who shall have discovered an improvement in the principle of any machine, or in the process of any composition of matter, which has been patented, and shall have obtained a patent for such improvement, he shall not be at liberty to make, use or vend the original discovery, nor shall the first inventor be at liberty to use the improvement: And it is hereby enacted and declared, that simply changing the form or the proportions of any machine, or composition of matter, in any degree, shall not be deemed a discovery.

The liberty of using an improvement defined.

Changing the form or proportions of any machine, &c., not to be a discovery.

SEC. 3. *And be it further enacted*, That every inventor, before he can receive a patent, shall swear or affirm, that he does verily believe that he is the true inventor or discoverer of the art, machine, or improvement, for which he solicits a patent, which oath or affirmation may be made before any person authorized to administer oaths, and shall deliver a written description of his invention, and of the manner of using, or process of compounding the same, in such full, clear, and exact terms, as to distinguish the same from all other things before known, and to enable any per-

How to proceed to obtain letters-patent.

1800, ch. 25, sec. 2.

Specification.

Specifica-
tion.

son skilled in the art or science of which it is a branch, or with which it is most nearly connected, to make, compound, and use the same. And in the case of any machine, he shall fully explain the principle, and the several modes in which he has contemplated the application of that principle or character, by which it may be distinguished from other inventions; and he shall accompany the whole with drawings and written references, where the nature of the case admits of drawings, or with specimens of the ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment, where the invention is of a composition of matter; which description, signed by himself, and attested by two witnesses, shall be filed in the office of the Secretary of State, and certified copies thereof shall be competent evidence in all courts, where any matter or thing, touching such patent right, shall come in question. And such inventor shall, moreover, deliver a model of his machine, provided the Secretary shall deem such model to be necessary.

Inventors
may assign
their titles.

Record of
assignment
to be made
in the office
of the Secre-
tary of State.

SEC. 4. *And be it further enacted*, That it shall be lawful for any inventor, his executor or administrator, to assign the title and interest in the said invention, at any time; and the assignee having recorded the said assignment in the office of the Secretary of State, shall thereafter stand in the place of the original inventor, both as to right and responsibility, and so the assignee of assigns, to any degree.

Forfeiture
on using pa-
tented inven-
tions with-
out leave.

SEC. 5. *And be it further enacted*, That if any person shall make, devise, and use, or sell the thing so invented, the exclusive right of which shall, as aforesaid, have been secured to any person by patent, without the consent of the patentee,

his executors, administrators, or assigns, first obtained in writing, every person so offending shall forfeit and pay to the patentee a sum, that shall be at least equal to three times the price for which the patentee has usually sold or licensed to other persons the use of the said invention; which may be recovered in an action on the case founded on this act, in the Circuit Court of the United States, or any other court having competent jurisdiction.

Three times
the price to
be the pen-
alty.

How recov-
ered.

SEC. 6. *Provided always, and be it further enacted,* That the defendant in such action shall be permitted to plead the general issue, and give this act, and any special matter, of which notice in writing may have been given to the plaintiff, or his attorney, thirty days before trial, in evidence, tending to prove that the specification, filed by the plaintiff does not contain the whole truth relative to his discovery, or that it contains more than is necessary to produce the described effect, which concealment or addition shall fully appear to have been made for the purpose of deceiving the public, or that the thing, thus secured by patent, was not originally discovered by the patentee, but had been in use, or had been described in some public work, anterior to the supposed discovery of the patentee, or that he had surreptitiously obtained a patent for the discovery of another person: in either of which cases, judgment shall be rendered for the defendant, with costs, and the patent shall be declared void.

How defen-
dants may
give this act
in evidence.

And judg-
ment shall be
given.

SEC. 7. *And be it further enacted,* That where any State, before its adoption of the present form of government, shall have granted an exclusive right to any invention, the party claiming that right shall not be capable of obtaining an exclusive

State rights
to inven-
tions, when
to be deemed
void.

right under this act ; but on relinquishing his right under such particular State, and of such relinquishment, his obtaining an exclusive right under this act shall be sufficient evidence.

How applications depending under former law shall be prosecuted under this act.

1790, ch. 7.

Proceedings to be had on interfering applications.

And against persons surreptitiously obtaining patents.

SEC. 8. *And be it further enacted*, That the persons whose application for patents were, at the time of passing this act, depending before the Secretary of State, Secretary of War, and Attorney General, according to the act, passed the second session of the first Congress, entitled "An Act to promote the progress of useful arts," on complying with the conditions of this act, and paying the fees herein required, may pursue their respective claims to a patent under the same.

SEC. 9. *And be it further enacted*, That in case of interfering applications, the same shall be submitted to the arbitration of three persons, one of whom shall be chosen by each of the applicants, and the third person shall be appointed by the Secretary of State ; and the decision or award of such arbitrators, delivered to the Secretary of State in writing, and subscribed by them, or any two of them shall be final, as far as respects the granting of the patent ; And if either of the applicants shall refuse or fail to choose an abitrator, the patent shall issue to the opposite party. And where there shall be more than two interfering applications, and the parties applying shall not all unite in appointing three abitrators, it shall be in the power of the Secretary of State to appoint three arbitrators for the purpose.

SEC. 10. *And be it further enacted*, That upon oath or affirmation being made before the judge of the district court, where the patentee, his executors, administrators, or assigns reside, that any patent, which shall be issued in pursuance of

this act was obtained surreptitiously, or upon false suggestion, and motion made to the said court, within three years after issuing the said patent, but not afterwards, it shall and may be lawful for the judge of the said district court, if the matter alleged shall appear to him to be sufficient, to grant a rule, that the patentee, or his executor, administrator, or assign, show cause why process should not issue against him to repeal such patent. And if sufficient cause shall not be shown to the contrary, the rule shall be made absolute, and thereupon the said judge shall order process to be issued against such patentee, or his executors, administrators, or assigns, with costs of suit. And in case no sufficient cause shall be shown to the contrary, or if it shall appear that the patentee was not the true inventor or discoverer, judgment shall be rendered by such court for the repeal of such patent; and if the party at whose complaint the process issued shall have judgment given against him, he shall pay all such costs as the defendant shall be put to in defending the suit, to be taxed by the court, and recovered in due course of law.

Repeal of
a patent il-
legally ob-
tained.

SEC. 11. *And be it further enacted,* That every inventor, before he presents his invention to the Secretary of State, signifying his desire of obtaining a patent, shall pay into the treasury thirty dollars, for which he shall take duplicate receipts; one of which receipts he shall deliver to the Secretary of State, when he presents his petition; and the money, thus paid, shall be in full for the sundry services to be performed in the office of the Secretary of State, consequent on such petition, and shall pass to the account of clerk hire in that office. *Provided, nevertheless,* That for every

Inventor,
before pre-
serving peti-
tion, to pay
\$30 into the
treasury.

Copying
fees.

copy which may be required at the said office, of any paper respecting any patent that has been granted, the person obtaining such copy shall pay, at the rate of twenty cents, for every copy-sheet of one hundred words, and for every copy of a drawing, the party obtaining the same shall pay two dollars; of which payments an account shall be rendered annually to the treasury of the United States, and they shall also pass to the account of clerk hire in the office of the Secretary of State.

Act of April
10, 1790, ch.
7, repealed.

SEC. 12. *And be it further enacted*, That the act, passed the tenth day of April, in the year one thousand seven hundred and ninety, entitled "An Act to promote the progress of useful arts," be, and the same is, hereby repealed. *Provided, always*, That nothing contained in this act shall be construed to invalidate any patent that may have been granted under the authority of the said act; and all patentees under the said act, their executors, administrators, and assigns, shall be considered within the purview of this act, in respect to the violation of their rights; provided, such violations shall be committed after the passing of this act.

Proviso.

Approved February 21, 1793.

(Obsolete.) CHAP. LVIII. — AN ACT supplementary to the act entitled
"An Act to promote the progress of useful arts."

Suits, &c.,
had under
certain act
revived.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all suits, actions, process and proceedings, heretofore had in any district court of the United States, under an act passed the tenth day of April, in the year one thousand seven hundred and ninety, entitled "An Act to promote the progress of useful arts," which may

Act of Feb.
21, 1793, ch.
11.

Act of April
10, 1790, ch.
7.

have been set aside, suspended or abated, by reason of the repeal of the said act, may be restored, at the instance of the plaintiff or defendant, within one year from and after the passing of this act, in the said courts, to the same situation in which they may have been when they were so set aside, suspended, or abated; and that the parties to the said suits, actions, process or proceedings, be and are hereby entitled to proceed in such cases as if no such repeal of the act aforesaid had taken place. *Provided always*, That before any order or proceeding, other than that for continuing the same suits, after the reïnstating thereof, shall be entered or had, the defendant or plaintiff, as the case may be, against whom the same may have been reïnstated, shall be brought into court by summons, attachment, or such other proceeding as is used in other cases for compelling the appearance of a party.

In what
manner.

Approved June 7, 1794.

CHAP. XXV. — AN ACT to extend the privilege of obtaining patents for useful discoveries and inventions, to certain persons therein mentioned, and to enlarge and define the penalties for violating the rights of patentees.

(Repealed.)

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That all and singular the rights and privileges given, intended or provided, to citizens of the United States, respecting patents for new inventions, discoveries and improvements, by the act entitled “An Act to promote the progress of useful arts, and to repeal the act heretofore made for that purpose,” shall be and hereby are extended and given to all aliens who, at the time of petitioning in the manner

Aliens having resided two years within the U. States, entitled to the benefit of the former act.

Act of Feb. 21, 1793, ch. 11.

Oath to be
taken by
such resi-
dent, that
the inven-
tion or dis-
covery hath
not been
used.

prescribed by the said act, shall have resided for two years within the United States, which privileges shall be obtained, used, and enjoyed by such persons, in as full and ample manner, and under the same conditions, limitations, and restrictions, as by the said act is provided and directed in the case of citizens of the United States. *Provided always,* That every person petitioning for a patent for any invention, art, or discovery, pursuant to this act, shall make oath or affirmation, before some person duly authorized to administer oaths, before such patent shall be granted, that such invention, art, or discovery, hath not, to the best of his or her knowledge or belief, been known or used either in this or any foreign country, and that every patent which shall be obtained pursuant to this act, for any invention, art or discovery, which it shall afterwards appear had been known or used previous to such application for a patent, shall be utterly void.

The legal
representa-
tives of a de-
ceased inven-
tor may ob-
tain a patent.

SEC. 2. *And be it further enacted,* That where any person hath made, or shall have made, any new invention, discovery or improvement, on account of which a patent might, by virtue of this or the above-mentioned act, be granted to such person, and shall die before any patent shall be granted therefor, the right of applying for and obtaining such patent shall devolve on the legal representatives of such person in trust for the heirs at law of the deceased, in case he shall have died intestate; but if otherwise, then in trust for his devisees, in as full and ample manner, and under the same conditions, limitations and restrictions, as the same was held or might have been claimed or enjoyed by such person, in his or her lifetime; and when application for a

patent shall be made by such legal representatives, the oath or affirmation, provided in the third section of the before-mentioned act, shall be so varied as to be applicable to them.

SEC. 3. *And be it further enacted*, That where any patent shall be or shall have been granted pursuant to this or the above-mentioned act, and any person, without the consent of the patentee, his or her executors, administrators or assigns, first obtained in writing, shall make, devise, use, or sell the thing whereof the exclusive right is secured to the said patentee by such patent, such person so offending shall forfeit and pay to the said patentee, his executors, administrators or assigns, a sum equal to three times the actual damage sustained by such patentee, his executors, administrators or assigns, from or by reason of such offence, which sum shall and may be recovered by action on the case, founded on this and the above-mentioned act, in the circuit court of the United States having jurisdiction thereof.

Damages for breach of patent right.

To be recovered by action on the case in the circuit court.

SEC. 4. *And be it further enacted*, That the fifth section of the above-mentioned act, entitled "An Act to promote the progress of useful arts, and to repeal the act heretofore made for that purpose," shall be and hereby is repealed.

Repeal of part of the former act.
Act of Feb. 21, 1793, ch. 11.

Approved April 17, 1800.

CHAP. XIX.—AN ACT to extend the jurisdiction of the circuit courts of the United States to cases arising under the law relating to patents.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the circuit courts of the United States shall have original cognizance, as well in equity as at law, of all actions, suits, con-

The circuit courts to have original cognizance in equity and at law, in controversies respecting the right to inventions and writings.

Act of Feb.
21, 1793, ch.
11.

Act of May
31, 1790, ch.
15.

Proviso.

troversies, and cases, arising under any law of the United States, granting or confirming to authors or inventors the exclusive right to their respective writings, inventions, and discoveries; and upon any bill in equity, filed by any party aggrieved in any such cases, shall have authority to grant injunctions, according to the course and principles of courts of equity, to prevent the violation of the rights of any authors or inventors, secured to them by any laws of the United States, on such terms and conditions as the said courts may deem fit and reasonable: *Provided, however,* That from all judgments and decrees of any circuit courts, rendered in the premises, a writ of error or appeal, as the case may require, shall lie to the Supreme Court of the United States, in the same manner, and under the same circumstances, as is now provided by law in other judgments and decrees of such circuit courts.

Approved February 15, 1819.

CHAP. CLXII. — AN ACT concerning patents for useful inventions.

Act of July
4, 1836, ch.
357.

List of ex-
pired patents
to be annual-
ly reported to
Congress.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That it shall be the duty of the Secretary of State, annually, in the month of January, to report to Congress, and to publish in two of the newspapers printed in the city of Washington, a list of all the patents for discoveries, inventions and improvements, which shall have expired within the year immediately preceding, with the names of the patentees, alphabetically arranged.

SEC. 2. *And be it further enacted,* That application to Congress to prolong or renew the term

of a patent shall be made before its expiration, and shall be notified at least once a month, for three months before its presentation, in two newspapers printed in the city of Washington, and in one of the newspapers in which the laws of the United States shall be published in the State or territory in which the patentee shall reside. The petition shall set forth particularly the grounds of the application. It shall be verified by oath; the evidence in its support may be taken before any judge or justice of the peace; it shall be accompanied by a statement of the ascertained value of the discovery, invention, or improvement, and of the receipts and expenditures of the patentee, so as to exhibit the profit or loss arising therefrom.

Form of application to prolong or renew patent.

SEC. 3. *And be it further enacted,* That wherever any patent which has been heretofore, or shall be hereafter, granted to any inventor in pursuance of the act of Congress, entitled "An Act to promote the progress of useful arts, and to repeal the act heretofore made for that purpose," passed on the twenty-first day of February, in the year of our Lord, one thousand seven hundred and ninety-three, or of any of the acts supplementary thereto, shall be invalid or inoperative, by reason that any of the terms or conditions prescribed in the third section of the said first mentioned act have not, by inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, been complied with on the part of the said inventor, it shall be lawful for the Secretary of State, upon the surrender to him of such patent, to cause a new patent to be granted to the said inventor for the same invention for the residue of the period then unexpired,

Patent to be invalid in case of inventor not having complied with the terms, &c.

1793, ch. 11.

Secretary of State, upon surrender, &c., to grant a new patent.

for which the original patent was granted, upon his compliance with the terms and conditions prescribed in the said third section of the said act.

In case of death, &c., right to vest in executors, &c.

Proviso.

And, in case of his death, or any assignment by him made of the same patent, the like right shall vest in his executors and administrators, or assignee or assignees; *Provided, however,* That such new patent so granted shall, in all respects, be liable to the same matters of objection and defence as any original patent granted under the said first-mentioned act. But no public use or privilege of the invention so patented, derived from or after the grant of the original patent, either under any special license of the inventor, or without the consent of the patentee that there shall be a free public use thereof, shall, in any manner, prejudice his right of recovery for any use or violation of his invention after the grant of such new patent as aforesaid.

Approved July 3, 1832.

CHAP. CCIH. — AN ACT concerning the issuing of Patents to aliens, for useful discoveries and inventions.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the privileges granted to the aliens described in the first section of the act, to extend the privilege of obtaining patents for useful discoveries and inventions to certain persons therein mentioned, and to enlarge and define the penalties for violating the rights of patentees, approved April seventeenth, eighteen hundred, be extended, in like manner, to every alien, who, at the time of petitioning for a patent, shall be resident in the United States, and shall

The privileges granted to aliens extended.

Act of April 17, 1800, ch. 25.

have declared his intention, according to law, to become a citizen thereof; *Provided*, That every patent granted by virtue of this act, and the privileges thereto appertaining, shall cease and determine and become absolutely void, without resort to any legal process to annul or cancel the same, in case of a failure on the part of any patentee, for the space of one year from the issuing thereof, to introduce into public use in the United States the invention or improvement for which the patent shall be issued, or in case the same for any period of six months after such introduction shall not continue to be publicly used and applied in the United States, or in case of failure to become a citizen of the United States, agreeably to notice given at the earliest period within which he shall be entitled to become a citizen of the United States.

Proviso.

Approved July 13, 1832.

CHAP. CCCLVII. — AN ACT to promote the progress of the useful arts, and to repeal all acts and parts of acts heretofore made for that purpose.

March 3,
1837, ch. 43.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That there shall be established and attached to the Department of State an office to be denominated the Patent Office, the chief officer of which shall be called the Commissioner of Patents, to be appointed by the President, by and with the advice and consent of the Senate, whose duty it shall be, under the direction of the Secretary of State, to superintend, execute, and perform all such acts and things touching and respecting the granting and issuing of patents for new and useful discoveries,

Commis-
sioner of Pa-
tents to be
appointed,
and his du-
ties.

August 29,
1842, ch. 263.

inventions, and improvements, as are herein provided for, or shall hereafter be, by law, directed to be done and performed, and shall have the charge and custody of all the books, records, papers, models, machines, and all other things belonging to said office. And said Commissioner shall receive the same compensation as is allowed by law to the Commissioner of the Indian Department, and shall be entitled to send and receive letters and packages by mail, relating to the business of the office, free of postage.

Chief clerk.

SEC. 2. *And be it further enacted,* That there shall be in said office an inferior officer, to be appointed by the said principal officer, with the approval of the Secretary of State, to receive an annual salary of seventeen hundred dollars, and to be called the chief clerk of the Patent Office, who, in all cases during the necessary absence of the Commissioner, or when the said principal office shall become vacant, shall have the charge and custody of the seal, and of the records, books, papers, machines, models, and all other things, belonging to the said office, and shall perform the duties of Commissioner during such vacancy.

Examining clerk, and other officers.

And the said Commissioner may also, with like approval, appoint an examining clerk, at an annual salary of fifteen hundred dollars; two other clerks, at twelve hundred dollars each, one of whom shall be a competent draughtsman; one other clerk, at one thousand dollars; a machinist, at twelve hundred and fifty dollars; and a messenger, at seven hundred dollars. And said Commissioner, clerks, and every other person appointed and employed in said office, shall be disqualified and interdicted from acquiring or taking, except by inheritance, during the period

for which they shall hold their appointments, respectively, for any right or interest, directly or indirectly, in any patent for an invention or discovery which has been, or may hereafter be, granted.

SEC. 3. *And be it further enacted*, That the said principal officer, and every other person to be appointed in the said office, shall, before he enters upon the duties of his office or appointment, make oath or affirmation truly and faithfully to execute the trust committed to him. And the said Commissioner and the chief clerk shall also, before entering upon their duties, severally give bonds, with sureties, to the Treasurer of the United States, the former in the sum of ten thousand dollars, and the latter in the sum of five thousand dollars, with condition to render a true and faithful account to him or his successor in office, quarterly, of all moneys which shall be by them respectively received for duties on patents, and for copies of records and drawings, and all other moneys received by virtue of said office.

Officers to
make oath,
&c.

SEC. 4. *And be it further enacted*, That the said Commissioner shall cause a seal to be made and provided for the said office, with such device as the President of the United States shall approve; and copies of any records, books, papers, or drawings, belonging to the said office, under the signature of the said Commissioner, or, when the office shall be vacant, under the signature of the chief clerk, with the said seal affixed, shall be competent evidence in all cases in which the original records, books, papers, or drawing, could be evidence. And any person making application therefor may have certified copies of the records, drawings, and other papers deposited

A seal to be
provided.

in said office, on paying, for the written copies, the sum of ten cents for every page of one hundred words; and for copies of drawings, the reasonable expense of making the same.

Patents to be signed by the Secretary of State and by the Commissioner.

SEC. 5. *And be it further enacted*, That all patents issued from said office shall be issued in the name of the United States, and under the seal of said office, and be signed by the Secretary of State, and counter-signed by the Commissioner of the said office, and shall be recorded, together with the descriptions, specifications, and drawings, in the said office, in books to be kept for that purpose. Every such patent shall contain a short description or title of the invention or discovery, correctly indicating its nature and design, and in its terms grant to the applicant or applicants, his or their heirs, administrators, executors, or assigns, for a term not exceeding fourteen years, the full and exclusive right and liberty of making, using, and vending to others to be used, the said invention or discovery, referring to the specifications for the particulars thereof, a copy of which shall be annexed to the patent, specifying what the patentee claims as his invention or discovery.

Applications, how made.

SEC. 6. *And be it further enacted*, That any person or persons having discovered or invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements on any art, machine, manufacture, or composition of matter, not known or used by others before his or their discovery or invention thereof, and not, at the time of his application for a patent, in public use or on sale, with his consent or allowance, as the inventor or discoverer, and shall desire to obtain an exclusive property therein, may make application in writing to the

Commissioner of Patents, expressing such desire, and the Commissioner, on due proceedings had, may grant a patent therefor. But before any inventor shall receive a patent for any such new invention or discovery, he shall deliver a written description of his invention or discovery, and of the manner and process of making, constructing, using, and compounding the same, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same; and, in case of any machine, he shall fully explain the principle, and the several modes in which he has contemplated the application of that principle or character by which it may be distinguished from other inventions; and shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery. He shall, furthermore, accompany the whole with a drawing or drawings, and written references, where the nature of the case admits of drawings; or with specimens of ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment, where the invention or discovery is of a composition of matter; which descriptions and drawings, signed by the inventor, and attested by two witnesses, shall be filed in the Patent Office; and he shall, moreover, furnish a model of his invention, in all cases which admit of a representation by model, of a convenient size to exhibit advantageously its several parts. The applicant shall also make oath, or affirmation, that he does verily believe that he is the original and first inventor or discoverer of the art, machine,

Specifica-
tion.Drawings,
&c.

Models.

Oath or af-
firmation.

composition, or improvement, for which he solicits a patent; and that he does not know or believe that the same was ever before known or used; and also of what country he is a citizen; which oath or affirmation may be made before any person authorized by law to administer oaths.

Examina-
tion of in-
vention to
be made, and
proceedings
thereon,
should it not
be deemed
new.

SEC. 7. *And be it further enacted*, That, on the filing of any such application, description, and specification, and the payment of the duty hereinafter provided, the Commissioner shall make, or cause to be made, an examination of the alleged new invention or discovery; and if, on any such examination, it shall not appear to the Commissioner that the same had been invented or discovered by any other person in this country, prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in any printed publication in this or any foreign country, or had been in public use or on sale, with the applicant's consent or allowance, prior to the application, if the Commissioner shall deem it to be sufficiently useful and important, it shall be his duty to issue a patent therefor. But whenever, on such examination, it shall appear to the Commissioner that the applicant was not the original and first inventor or discoverer thereof, or that any part of that which is claimed as new had before been invented or discovered, or patented, or described in any printed publication in this or any foreign country as aforesaid, or that the description is defective and insufficient, he shall notify the applicant thereof, giving him briefly such information and references as may be useful in judging of the propriety of renewing his application, or of altering his specification to embrace only that part of the invention or discovery which

is new. In every such case, if the applicant shall elect to withdraw his application, relinquishing his claim to the model, he shall be entitled to receive back twenty dollars, part of the duty required by this act, on filing a notice in writing of such election in the Patent Office; a copy of which, certified by the Commissioner, shall be a sufficient warrant to the treasurer for paying back to the said applicant the said sum of twenty dollars. But if the applicant, in such case, shall persist in his claims for a patent, with or without any alteration of his specification, he shall be required to make oath or affirmation anew, in manner as aforesaid; and if the specification and claim shall not have been so modified as, in the opinion of the Commissioner, shall entitle the applicant to a patent, he may, on appeal, and upon request in writing, have the decision of a board of examiners, to be composed of three disinterested persons, who shall be appointed for that purpose by the Secretary of State, one of whom, at least, to be selected, if practicable and convenient, for his knowledge and skill in the particular art, manufacture, or branch of science, to which the alleged invention appertains; who shall be under oath or affirmation for the faithful and impartial performance of the duty imposed upon them by said appointment. Said board shall be furnished with a certificate in writing of the opinion and decision of the Commissioner, stating the particular grounds of his objection, and the part or parts of the invention which he considers as not entitled to be patented. And the said board shall give reasonable notice to the applicant, as well as to the Commissioner, of the time and place of their meeting, that they may have an opportunity of

furnishing them with such facts and evidence as they may deem necessary to a just decision; and it shall be the duty of the Commissioner to furnish to the board of examiners such information as he may possess relative to the matter under their consideration. And on an examination and consideration of the matter by such board, it shall be in their power, or of a majority of them, to reverse the decision of the Commissioner, either in whole or in part; and their opinion being certified to the Commissioner, he shall be governed thereby in the further proceedings to be had on such application: *Provided, however,* That, before a board shall be instituted in any such case, the applicant shall pay to the credit of the treasury, as provided in the ninth section of this act, the sum of twenty-five dollars; and each of said persons so appointed shall be entitled to receive, for his services, in each case, a sum not exceeding ten dollars, to be determined and paid by the Commissioner out of any moneys in his hands, which shall be in full compensation to the persons who may be so appointed, for their examination and certificate as aforesaid.

Interfering
applications.

SEC. 8. *And be it further enacted,* That whenever an application shall be made for a patent, which, in the opinion of the Commissioner, would interfere with any other patent for which an application may be pending, or with any unexpired patent which shall have been granted, it shall be the duty of the Commissioner to give notice thereof to such applicants, or patentees, as the case may be; and if either shall be dissatisfied with the decision of the Commissioner on the question of priority of right or invention, on a hearing thereof, he may appeal from such decis-

ion, on the like terms and conditions as are provided in the preceding section of this act, and the like proceedings shall be had to determine which, or whether either, of the applicants is entitled to receive a patent as prayed for. But nothing in this act contained shall be construed to deprive an original and true inventor of the right to a patent for his invention, by reason of his having previously taken out letters-patent therefor in a foreign country, and the same having been published, at any time within six months next preceding the filing of his specification and drawings. And whenever the applicant shall request it, the patent shall take date from the time of filing of the specifications and drawings, not, however, exceeding six months prior to the actual issuing of the patent; and on like request, and the payment of the duty herein required, by any applicant, his specification and drawings shall be filed in the secret archives of the office, until he shall furnish the model, and the patent be issued, not exceeding the term of one year, the applicant being entitled to notice of interfering applications.

SEC. 9. *And be it further enacted*, That before any application for a patent shall be considered by the Commissioner as aforesaid, the applicant shall pay into the treasury of the United States, or into the Patent Office, or into any of the deposit banks, to the credit of the treasury, if he be a citizen in the United States, or an alien, and shall have been resident in the United States for one year next preceding, and shall have made oath of his intention to become a citizen thereof, the sum of thirty dollars; if a subject of the King of Great Britain, the sum of five hundred dollars; and all other persons the sum of three hundred

Thirty dollars to be paid to the credit of the U. States treasurer by a citizen, or, &c.

Five hundred dollars by a subject of G. Britain, and three

hundred by
other per-
sons.

dollars; for which payment duplicate receipts shall be taken, one of which to be filed in the office of the treasurer. And the moneys received into the treasury under this act shall constitute a fund for the payment of the salaries of the officers and clerks herein provided for, and all other expenses of the Patent Office, and to be called the patent fund.

Inventors
dying with-
out taking a
patent, their
executors,
&c., may,
&c.

SEC. 10. *And be it further enacted*, That where any person hath made, or shall have made, any new invention, discovery, or improvement, on account of which a patent might by virtue of this act be granted, and such person shall die, before any patent shall be granted therefor, the right of applying for and obtaining such patent shall devolve on the executor or administrator of such person, in trust for the heirs-at-law of the deceased, in case he shall have died intestate; but if otherwise, then in trust for his devisees, in as full and ample manner, and under the same conditions, limitations, and restrictions, as the same was held, or might have been claimed or enjoyed by such person in his or her lifetime; and when application for a patent shall be made by such legal representatives, the oath or affirmation provided in the sixth section of this act shall be so varied as to be applicable to them.

Assignment
of a patent,
and record
thereof.

SEC. 11. *And be it further enacted*, That every patent shall be assignable in law, either as to the whole interest, or any undivided part thereof, by any instrument in writing; which assignment, and also every grant and conveyance of the exclusive right under any patent, to make and use, and to grant to others to make and use, the thing patented within and throughout any specified part or portion of the United States, shall be

recorded in the Patent Office within three months from the execution thereof, for which the assignee or grantee shall pay to the Commissioner the sum of three dollars.

SEC. 12. *And be it further enacted*, That any citizen of the United States, or alien, who shall have been a resident of the United States one year next preceding, and shall have made oath of his intention to become a citizen thereof, who shall have invented any new art, machine, or improvement thereof, and shall desire further time to mature the same, may, on paying to the credit of the treasury, in manner as provided in the ninth section of this act, the sum of twenty dollars, file in the Patent Office a caveat setting forth the design and purpose thereof, and its principal and distinguishing characteristics, and praying protection of his right, till he shall have matured his invention; which sum of twenty dollars, in case the person filing such caveat shall afterwards take out a patent for the invention therein mentioned, shall be considered a part of the sum herein required for the same. And such caveat shall be filed in the confidential archives of the office, and preserved in secrecy. And if application shall be made by any other person, within one year from the time of filing such caveat, for a patent of any invention with which it may in any respect interfere, it shall be the duty of the Commissioner to deposit the description, specifications, drawings, and model, in the confidential archives of the office, and to give notice (by mail) to the person filing the caveat of such application, who shall, within three months after receiving the notice, if he would avail himself of the benefit of his caveat, file his description,

Caveat may
be entered.

specification, drawings, and model; and if, in the opinion of the Commissioner, the specifications of claim interfere with each other, like proceedings may be had in all respects as are in this act provided in the case of interfering applications. *Provided, however,* That no opinion or decision of any board of examiners, under the provisions of this act, shall preclude any person interested in favor of or against the validity of any patent which has been or may hereafter be granted, from the right to contest the same in any judicial court, in any action in which its validity may come in question.

Proviso.

Patents invalid from defective specifications may be surrendered, and new patents may be issued in certain cases.

SEC. 13. *And be it further enacted,* That whenever any patent, which has heretofore been granted, or which shall hereafter be granted, shall be inoperative or invalid, by reason of a defective or insufficient description or specification, or by reason of the patentee claiming, in his specification, as his own invention, more than he had or shall have a right to claim as new, if the error has or shall have arisen by inadvertency, accident, or mistake, and without any fraudulent or deceptive intention, it shall be lawful for the Commissioner, upon the surrender to him of such patent, and the payment of the further duty of fifteen dollars, to cause a new patent to be issued to the said inventor for the same invention, for the residue of the period then unexpired, for which the original patent was granted, in accordance with the patentee's corrected description and specification. And in case of his death, or any assignment by him made of the original patent, a similar right shall vest in his executors, administrators, or assignees. And the patent so reissued, together with the corrected description and specifications, shall have the same effect and operation

in law, on the trial of all actions hereafter commenced for causes subsequently accruing, as though the same had been originally filed in such corrected form, before the issuing of the original patent. And whenever the original patentee shall be desirous of adding the description and specification of any new improvement of the original invention or discovery, which shall have been invented or discovered by him subsequent to the date of his patent, he may, like proceedings being had in all respects as in the case of original applications, and on the payment of fifteen dollars, as hereinbefore provided, have the same annexed to the original description and specification; and the Commissioner shall certify, on the margin of such annexed description and specification, the time of its being annexed and recorded; and the same shall thereafter have the same effect in law, to all intents and purposes, as though it had been embraced in the original description and specification.

Patentee
may make
additions to
his patent.

SEC. 14. *And be it further enacted,* That whenever, in any action for damages [for] making, using, or selling the thing whereof the exclusive right is secured by any patent heretofore granted, or by any patent which may hereafter be granted, a verdict shall be rendered for the plaintiff in such action, it shall be in the power of the court to render judgment of any sum above the amount found by such verdict as the actual damages sustained by the plaintiff, not exceeding three times the amount thereof, according to the circumstances of the case, with costs; and such damages may be recovered by action on the case, in any court of competent jurisdiction, to be brought in the name or names

Courts may
render judgment for a
sum not exceeding three
times the
amount of
actual damages.

of the person or persons interested, whether as patentee, assignees, or as grantees of the exclusive right within and throughout a specified part of the United States.

Defendant
may plead
the general
issue, &c.

SEC. 15. *And be it further enacted*, That the defendant in any such action shall be permitted to plead the general issue, and to give this act and any special matter in evidence, of which notice in writing may have been given to the plaintiff or his attorney, thirty days before trial, tending to prove that the description and specification filed by the plaintiff does not contain the whole truth relative to his invention or discovery, or that it contains more than is necessary to produce the described effect; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public, or that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof, claimed as new, or that it had been described in some public work anterior to the supposed discovery thereof by the patentee, or had been in public use or on sale with the consent and allowance of the patentee before his application for a patent, or that he had surreptitiously or unjustly obtained the patent for that which was in fact invented or discovered by another, who was using reasonable diligence in adapting and perfecting the same; or that the patentee, if an alien at the time the patent was granted, had failed and neglected, for the space of eighteen months from the date of the patent, to put and continue on sale to the public, on reasonable terms, the invention or discovery for which the patent issued; and whenever the defendant relies in his defence on the

fact of a previous invention, knowledge, or use of the thing patented, he shall state, in his notice of special matter, the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing and where the same had been used; in either of which cases, judgment shall be rendered for the defendant, with costs; *Provided, however*, That whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be void on account of the invention or discovery, or any part thereof, having been known or used in any foreign country; it not appearing that the same, or any substantial part thereof, had before been patented or described in any printed publication; *And provided, also*, That whenever the plaintiff shall fail to sustain his action on the ground that in his specification or claim is embraced more than that of which he was the first inventor, if it shall appear that the defendant had used or violated any part of the invention justly and truly specified and claimed as new, it shall be in the power of the court to adjudge and award, as to costs as may appear to be just and equitable.

Proviso.

Proviso.

SEC. 16. *And be it further enacted*, That whenever there shall be two interfering patents, or whenever a patent or application shall have been refused on an adverse decision of a board of examiners, on the ground that the patent applied for would interfere with an unexpired patent previously granted, any person interested in any such patent either by assignment or otherwise in the one case, and any such applicant in the

Interfering
patents, &c.

other case, may have remedy by bill in equity; and the court having cognizance thereof, on notice to adverse parties, and other due proceedings had, may adjudge and declare either the patents void in the whole or in part, or inoperative and invalid in any particular part or portion of the United States, according to the interest which the parties to such suit may possess in the patent or the inventions patented, and may also adjudge that such applicant is entitled, according to the principles and provisions of this act, to have and receive a patent for his invention, as specified in his claim, or for any part thereof, as the fact of priority of right or invention shall, in any such case, be made to appear. And such adjudication, if it be in favor of the right of such applicant, shall authorize the Commissioner to issue such patent on his filing a copy of the adjudication, and otherwise complying with the requisitions of this act: *Provided, however,* That no such judgment or adjudication shall affect the rights of any person, except the parties to the action, and those deriving title from or under them subsequent to the rendition of such judgment.

Proviso.

Actions
cognizable in
circuit
courts of the
U. S., &c.

SEC. 17. *And be it further enacted,* That all actions, suits, controversies, and cases arising under any law of the United States, granting or confirming to inventors the exclusive right to their inventions or discoveries, shall be originally cognizable, as well in equity as at law, by the circuit courts of the United States, or any district court having the powers and jurisdiction of a circuit court; which courts shall have power, upon a bill in equity filed by any party aggrieved, in any such case, to grant injunctions, according

to the course and principles of courts of equity, to prevent the violation of the rights of any inventor as secured to him by any law of the United States, on such terms and conditions as said courts may deem reasonable: *Provided, however,* That from all judgments and decrees from any such court rendered in the premises, a writ of error or appeal, as the case may require, shall lie to the Supreme Court of the United States, in the same manner, and under the same circumstances, as is now provided by law in other judgments and decrees of circuit courts, and in all other cases in which the court shall deem it reasonable to allow the same.

Proviso.

SEC. 18. *And be it further enacted,* That whenever any patentee of an invention or discovery shall desire an extension of his patent beyond the term of its limitation, he may make application therefor, in writing, to the Commissioner of the Patent Office, setting forth the grounds thereof; and the Commissioner shall, on the applicant's paying the sum of forty dollars to the credit of the treasury, as in the case of an original application for a patent, cause to be published in one or more of the principal newspapers in the city of Washington, and in such other paper or papers as he may deem proper, published in the section of country most interested adversely to the extension of the patent, a notice of such application, and of the time and place when and where the same will be considered, that any person may appear and show cause why the extension should not be granted. And the Secretary of State, the Commissioner of the Patent Office, and the Solicitor of the Treasury, shall constitute a board to hear and decide upon

Patents may be extended seven years in certain cases.

the evidence produced before them, both for and against the extension, and shall sit for that purpose at the time and place designated in the published notice thereof. The patentee shall furnish to said board a statement, in writing, under oath, of the ascertained value of the invention, and of his receipts and expenditures, sufficiently in detail to exhibit a true and faithful account of loss and profit in any manner accruing to him from and by reason of said invention. And if, upon a hearing of the matter, it shall appear to the full and entire satisfaction of said board, having due regard to the public interest therein, that it is just and proper that the term of the patent should be extended, by reason of the patentee, without neglect or fault on his part, having failed to obtain, from the use and sale of his invention, a reasonable remuneration for the time, ingenuity, and expense bestowed upon the same, and the introduction thereof into use, it shall be the duty of the Commissioner to renew and extend the patent, by making a certificate thereon of such extension, for the term of seven years from and after the expiration of the first term; which certificate, with a certificate of said board of their judgment and opinion as aforesaid, shall be entered on record in the Patent Office; and thereupon the said patent shall have the same effect in law as though it had been originally granted for the term of twenty-one years; and the benefit of such renewal shall extend to assignees and grantees of the right to use the thing patented, to the extent of their respective interests therein; *Provided, however,* That no extension of a patent shall be granted after the expiration of the term for which it was originally issued.

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SEC. 19. *And be it further enacted,* That ^{Library of Patent Office.} there shall be provided, for the use of said office, a library of scientific works and periodical publications, both foreign and American, calculated to facilitate the discharge of the duties hereby required of the chief officers therein, to be purchased under the direction of the Committee of the Library of Congress. And the sum of fifteen hundred dollars is hereby appropriated for that purpose, to be paid out of the patent fund.

SEC. 20. *And be it further enacted,* That it shall be the duty of the Commissioner to cause ^{Models to be classified and arranged.} to be classified and arranged in such rooms or galleries as may be provided for that purpose, in suitable cases, when necessary for their preservation, and in such manner as shall be conducive to a beneficial and favorable display thereof, the models and specimens of compositions and of fabrics, and other manufactures and works of art, patented or unpatented, which have been, or shall hereafter be, deposited in said office. And said rooms or galleries shall be kept open during suitable hours for public inspection.

SEC. 21. *And be it further enacted,* That all ^{Former acts repealed.} acts and parts of acts heretofore passed on this subject be, and the same are hereby, repealed: *Provided, however,* That all actions and processes in law or equity sued out prior to the passage of this act, may be prosecuted to final judgment and execution, in the same manner as though this act had not been passed, excepting and saving the application to any such action of the provisions of the fourteenth and fifteenth sections of this act, so far as they may be applicable thereto: *And provided, also,* That all applications for petitions for patents, pending at the ^{Proviso.} ^{Proviso.}

time of the passage of this act, in cases where the duty has been paid, shall be proceeded with and acted on in the same manner as though filed after the passage thereof.

JAMES K. POLK,

Speaker of the House of Representatives.

W. R. KING,

President of the Senate, pro tem.

Approved July 4, 1836.

ANDREW JACKSON.

Patents issued, and assignments executed and recorded prior to 15th December, 1836, may be recorded anew, &c.

CHAP. XLI. — AN ACT in addition to the act to promote the progress of science and useful arts.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That any person who may be in possession of, or in any way interested in, any patent for an invention, discovery, or improvement, issued prior to the fifteenth day of December, in the year of our Lord one thousand eight hundred and thirty-six, or in an assignment of any patent, or interest therein, executed and recorded prior to the said fifteenth day of December, may, without charge, on presentation, or transmission thereof, to the Commissioner of Patents, have the same recorded anew in the Patent Office, together with the descriptions, specifications of claim, and drawings annexed or belonging to the same; and it shall be the duty of the Commissioner to cause the same, or any authenticated copy of the original record, specification, or drawing, which he may obtain, to be transcribed and copied into books of record to be kept for that purpose; and whenever a drawing was not originally annexed to the patent and referred to in the specification, any drawing produced as a delineation

tion of the invention, being verified by oath in such manner as the Commissioner shall require, may be transmitted and placed on file, or copied as aforesaid, together with certificate of the oath; or such drawings may be made in the office, under the direction of the Commissioner, in conformity with the specification. And it shall be the duty of the Commissioner to take such measures as may be advised and determined by the board of Commissioners provided for in the fourth section of this act, to obtain the patents, specifications, and copies aforesaid, for the purpose of being so transcribed and recorded. And it shall be the duty of each of the several clerks of the judicial courts of the United States to transmit, as soon as may be, to the Commissioner of the Patent Office, a statement of all the authenticated copies of patents, descriptions, specifications, and drawings of inventions and discoveries, made and executed prior to the aforesaid fifteenth day of December, which may be found on the files of his office; and also to make out and transmit to said Commissioner, for record as aforesaid, a certified copy of every such patent, description, specification, or drawing, which shall be specially required by said Commissioner.

Measures to be taken to obtain patents, &c, to be recorded, &c.

Clerks of the judicial courts of U. States to transmit statements of authenticated copies of patents, &c., prior to 15th December, 1836, &c.

SEC. 2. *And be it further enacted*, That copies of such record and drawings, certified by the Commissioner, or, in his absence, by the chief clerk, shall be *primâ facie* evidence of the particulars of the invention, and of the patent granted therefor in any judicial court of the United States, in all cases where copies of the original record or specification and drawings would be evidence, without proof of the loss of such originals; and no patent issued prior to the aforesaid fifteenth

Certified copies of such record, &c., to be evidence in any judicial court of U. S. &c.

No patent,
&c., issued,
&c., prior to
December 15,
1836, to be
received in
evidence in
said courts,
after 1st June
next, unless
recorded
anew.

day of December shall, after the first day of June next, be received in evidence in any of the said courts in behalf of the patentee or other person who shall be in possession of the same, unless it shall have been so recorded anew, and a drawing of the invention, if separate from the patent, verified as aforesaid, deposited in the Patent Office; nor shall any written assignment of any such patent, executed and recorded prior to the said fifteenth day of December, be received in evidence in any of the said courts in behalf of the assignee or other person in possession thereof, until it shall have been so recorded anew.

New pa-
tents to be
issued for
those lost or
destroyed on
or before De-
cember 15,
1836.

SEC. 3. *And be it further enacted*, That, whenever it shall appear to the Commissioner that any patent was destroyed by the burning of the Patent Office building on the aforesaid fifteenth day of December, or was otherwise lost prior thereto, it shall be his duty, on application therefor by the patentee or other person interested therein, to issue a new patent for the same invention or discovery, bearing the date of the original patent, with his certificate thereon, that it was made and issued pursuant to the provisions of the third section of this act, and shall enter the same of record: *Provided, however*, That before such patent shall be issued, the applicant therefor shall deposit in the Patent Office a duplicate, as near as may be, of the original model, drawings, and descriptions, with specifications of the invention or discovery, verified by oath, as shall be required by the Commissioner; and such patent, and copies of such drawings and descriptions, duly certified, shall be admissible as evidence in any judicial court of the United States, and shall protect the rights of the patentee, his administrators, heirs, and assigns,

Proviso.

to the extent only in which they would have been protected by the original patent and specification.

SEC. 4. *And be it further enacted*, That it shall be the duty of the Commissioner to procure a duplicate of such of the models destroyed by fire on the aforesaid fifteenth day of December as were most valuable and interesting, and whose preservation would be important to the public; and such as would be necessary to facilitate the just discharge of the duties imposed by law on the Commissioner in issuing patents, and to protect the rights of the public and of patentees in patented inventions and improvements: *Provided*, That a duplicate of such models may be obtained at a reasonable expense: *And provided, also*, That the whole amount of expenditure for this purpose shall not exceed the sum of one hundred thousand dollars. And there shall be a temporary board of Commissioners, to be composed of the Commissioner of the Patent Office and two other persons to be appointed by the President, whose duty it shall be to consider and determine upon the best and most judicious mode of obtaining models of suitable construction; and, also, to consider and determine what models may be procured in pursuance of, and in accordance with, the provisions and limitations in this section contained. And said Commissioners may make and establish all such regulations, terms, and conditions, not inconsistent with law, as in their opinion may be proper and necessary to carry the provisions of this section into effect, according to its true intent.

Duplicates of certain models to be procured.

Proviso.

Further proviso.

A temporary board of commissioners to be appointed; their duties.

SEC. 5. *And be it further enacted*, That, whenever a patent shall be returned for correction and reissue, under the thirteenth section of the act to which this is additional, and the patentee shall

Patents returned for correction, &c., under the 13th section of the act to which

this is additional, &c.

Act of 1836,
ch. 357.
Proviso.

No addition, &c., to be made to any patent heretofore granted, &c., until a verified duplicate model, &c., is deposited, &c.

Compensation for models, &c.

Patents hereafter to be issued.

desire several patents to be issued for distinct and separate parts of the thing patented, he shall first pay, in manner and in addition to the sum provided by that act, the sum of thirty dollars for each additional patent so to be issued: *Provided, however,* That no patent made prior to the aforesaid fifteenth day of December shall be corrected and reissued until a duplicate of the model and drawing of the thing, as originally invented, verified by oath as shall be required by the Commissioner, shall be deposited in the Patent Office. Nor shall any addition of an improvement be made to any patent heretofore granted, nor any new patent be issued for an improvement made in any machine, manufacture, or process, to the original inventor, assignee, or possessor, of a patent therefor, nor any disclaimer be admitted to record, until a duplicate model and drawing of the thing originally invented, verified as aforesaid, shall have been deposited in the Patent Office, if the Commissioner shall require the same; nor shall any patent be granted for an invention, improvement, or discovery, the model or drawing of which shall have been lost, until another model and drawing, if required by the Commissioner, shall, in like manner, be deposited in the Patent Office. And in all such cases, as well as in those which may arise under the third section of this act, the question of compensation for such models and drawing shall be subject to the judgment and decision of the Commissioners provided for in the fourth section, under the same limitations and restrictions as are therein prescribed.

SEC. 6. *And be it further enacted,* That any patent hereafter to be issued may be made and issued to the assignee or assignees of the inventor

or discoverer, the assignment thereof being first entered of record, and the application therefor being duly made, and the specification duly sworn to by the inventor. And in all cases hereafter, the applicant for a patent shall be held to furnish duplicate drawings, whenever the case admits of drawings, one of which to be deposited in the office, and the other to be annexed to the patent, and considered a part of the specification.

SEC. 7. *And be it further enacted*, That whenever any patentee shall have, through inadvertence, accident, or mistake, made his specification of claim too broad, claiming more than that of which he was the original or first inventor, some material and substantial part of the thing patented being truly and justly his own, any such patentee, his administrators, executors, and assigns, whether of the whole or of a sectional interest therein, may make disclaimer of such parts of the thing patented as the disclaimant shall not claim to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; which disclaimer shall be in writing, attested by one or more witnesses, and recorded in the Patent Office, on payment by the person disclaiming, in manner as other patent duties are required by law to be paid, of the sum of ten dollars. And such disclaimer shall thereafter be taken and considered as part of the original specification, to the extent of the interest which shall be possessed in the patent or right secured thereby, by the disclaimant, and by those claiming by or under him, subsequent to the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate

Whenever any patentee shall through inadvertence &c., make his specification too broad, &c., he, &c., may make disclaimer, &c.

to the question of unreasonable neglect or delay in filing the same.

Applications for additions to newly discovered improvements to be made to existing patents, &c.

SEC. 8. *And be it further enacted*, That whenever application shall be made to the Commissioner for any addition of a newly discovered improvement to be made to any existing patent, or whenever a patent shall be returned for correction and reissue, the specification of claim annexed to every such patent shall be subject to revision and restriction, in the same manner as are original applications for patents; the Commissioner shall not add any such improvement to the patent in the one case, nor grant the reissue in the other case, until the applicant shall have entered a disclaimer, or altered his specification of claim in accordance with the decision of the Commissioner; and in all such cases, the applicant, if dissatisfied with such decision, shall have the same remedy, and be entitled to the benefit of the same privileges and proceedings, as are provided by law in the case of original applications for patents.

When, by mistake, &c., any patentee claims to be the original inventor of part of the thing patented, of which he was not, &c.

SEC. 9. *And be it further enacted*, (anything in the fifteenth section of the act, to which this is additional, to the contrary notwithstanding,) That whenever, by mistake, accident, or inadvertence, and without any wilful default, or intent to defraud or mislead the public, any patentee shall have in his specification claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the first and original inventor, and shall have no legal or just right to claim the same, in every such case the patent shall be deemed good and valid for so much of the invention or discovery as shall be truly and bonâ fide his own: *Pro-*

Proviso.

vided, It shall be a material and substantial part of the thing patented, and be definitively distinguishable from the other parts so claimed without right as aforesaid. And every such patentee, his executors, administrators, and assigns, whether of a whole or of a sectional interest therein, shall be entitled to maintain a suit at law or in equity on such patent for any infringement of such part of the invention or discovery as shall be *bonâ fide* his own as aforesaid, notwithstanding the specification may embrace more than he shall have any legal right to claim. But in every such case in which a judgment or verdict shall be rendered for the plaintiff, he shall not be entitled to recover costs against the defendant, unless he shall have entered at the Patent Office, prior to the commencement of the suit, a disclaimer to all that part of the thing patented which was so claimed without right: *Provided, however*, That no person bringing any such suit shall be entitled to the benefits of the provisions contained in this section, who shall have unreasonably neglected or delayed to enter at the Patent Office a disclaimer as aforesaid.

Further proviso.

SEC. 10. *And be it further enacted*, That the Commissioner is hereby authorized and empowered to appoint agents in not exceeding twenty of the principal cities or towns in the United States, as may best accommodate the different sections of the country, for the purpose of receiving and forwarding to the Patent Office all such models, specimens of ingredients, and manufactures, as shall be intended to be patented or deposited therein, the transportation of the same to be chargeable to the patent fund.

Agents to be appointed to receive and forward models, &c.

Two examining, and one copying clerk, to be appointed.

SEC. 11. *And be it further enacted*, That instead of one examining clerk, as provided by the second section of the act to which this is additional, there shall be appointed, in manner therein provided, two examining clerks, each to receive an annual salary of fifteen hundred dollars; and, also, an additional copying clerk, at an annual salary of eight hundred dollars. And the Commissioner is also authorized to employ, from time to time, as many temporary clerks as may be necessary to execute the copying and draughting required by the first section of this act, and to examine and compare the records with the originals, who shall receive not exceeding seven cents for every page of one hundred words, and for drawings and comparison of records with originals, such reasonable compensation as shall be agreed upon or prescribed by the Commissioner.

Certificate of the Commissioner to be sufficient warrant to the Treasurer.

SEC. 12. *And be it further enacted*, That whenever the application of any foreigner for a patent shall be rejected and withdrawn for want of novelty in the invention, pursuant to the seventh section of the act to which this is additional, the certificate thereof of the Commissioner shall be a sufficient warrant to the Treasurer to pay back to such applicant two thirds of the duty he shall have paid into the Treasury on account of such application.

Affirmation may be substituted for an oath.

SEC. 13. *And be it further enacted*, That in all cases in which an oath is required by this act, or by the act to which this is additional, if the person of whom it is required shall be conscientiously scrupulous of taking an oath, affirmation may be substituted therefor.

Moneys paid into the

SEC. 14. *And be it further enacted*, That all

moneys paid into the Treasury of the United States for patents and for fees for copies furnished by the Superintendent of the Patent Office prior to the passage of the act of which this is additional, shall be carried to the credit of the patent fund created by said act; and the moneys constituting said fund shall be, and the same are hereby, appropriated for the payment of the salaries of the officers and clerks provided by said act, and all other expenses of the Patent Office, including all the expenditures provided for by this act; and, also, for such other purposes as are, or may be hereafter, specially provided for by law. And the Commissioner is hereby authorized to draw upon said fund, from time to time, for such sums as shall be necessary to carry into effect the provisions of this act, governed, however, by the several limitations herein contained. And it shall be his duty to lay before Congress, in the month of January, annually, a detailed statement of the expenditures and payments by him made from said fund. And it shall also be his duty to lay before Congress, in the month of January, annually, a list of all patents which shall have been granted during the preceding year, designating, under proper heads, the subjects of such patents, and furnishing an alphabetical list of the patentees, with their places of residence; and he shall also furnish a list of all patents which shall have become public property during the same period; together with such other information of the state and condition of the Patent Office as may be useful to Congress or the public.

treasury for patents, &c., prior to passage of the act to which this is additional, to be carried to credit of patent fund created by said act; and said fund appropriated for salaries, &c.

Commissioner authorized to draw upon the same, &c., and lay before Congress annually a statement of expenditures, &c., and also a list of patents, &c.

Approved March 3d, 1837.

CHAP. LXXXVIII. — AN ACT in addition to an "Act to promote the progress of the useful arts."

Act of July 4, 1836, ch. 357.

Act of Aug. 29, 1842, ch. 263.

Two assistant examiners to be appointed; how; their salaries.

Temporary clerks.

Proviso.

List of patents to be published.

Pay for use of rooms in City Hall.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That there shall be appointed, in manner provided in the second section of the act to which this is additional, two assistant examiners, each to receive an annual salary of twelve hundred and fifty dollars.

SEC. 2. *And be it further enacted,* That the Commissioner be authorized to employ temporary clerks to do any necessary transcribing, whenever the current business of the office requires it: *Provided, however,* That instead of salary a compensation shall be allowed, at a rate not greater than is charged for copies now furnished by the office.

SEC. 3. *And be it further enacted,* That the Commissioner is hereby authorized to publish a classified and alphabetical list of all patents granted by the Patent Office previous to said publication, and retain one hundred copies for the Patent Office, and nine hundred copies to be deposited in the library of Congress, for such distribution as may be hereafter directed; and that one thousand dollars, if necessary, be appropriated, out of the patent fund, to defray the expense of the same.

SEC. 4. *And be it further enacted,* That the sum of three thousand six hundred and fifty-nine dollars and twenty-two cents be, and is hereby, appropriated from the patent fund, to pay for the use and occupation of rooms in the City Hall by the Patent Office.

SEC. 5. *And be it further enacted,* That the sum of one thousand dollars be appropriated from the patent fund, to be expended under the direction of the Commissioner, for the purchase of necessary books for the library of the Patent Office.

Purchase of books.

SEC. 6. *And be it further enacted,* That no person shall be debarred from receiving a patent for any invention or discovery, as provided in the act approved on the fourth day of July, one thousand eight hundred and thirty-six, to which this is additional, by reason of the same having been patented in a foreign country more than six months prior to his application: *Provided,* That the same shall not have been introduced into public and common use in the United States prior to the application for such patent: *And provided, also,* That in all cases every such patent shall be limited to the term of fourteen years, from the date or publication of such foreign letters-patent.

No person to be debarred from receiving a patent, &c.

Proviso.

Proviso.

SEC. 7. *And be it further enacted,* That every person or corporation who has, or shall have, purchased or constructed any newly invented machine, manufacture, or composition of matter, prior to the application by the inventor or discoverer for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture, or composition of matter, so made or purchased, without liability therefor to the inventor, or any other person interested in such invention; and no patent shall be held to be invalid by reason of such purchase, sale, or use, prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public, or that such pur-

Persons, &c., having purchased or constructed any newly invented machine, &c.

chase, sale, or prior use, has been for more than two years prior to such application for a patent.

So much of 11th sec., act July 4, 1832, chap. 357, as requires payment for recording assignments, repealed.

SEC. 8. *And be it further enacted*, That so much of the eleventh section of the above recited act as requires the payment of three dollars to the Commissioner of Patents for recording any assignment, grant, or conveyances of the whole or any part of the interest or right under any patent, be, and the same is hereby, repealed; and all such assignments, grants, and conveyance, shall, in future, be recorded without any charge whatever.

Agricultural statistics, &c.

SEC. 9. *And be it further enacted*, That a sum of money, not exceeding one thousand dollars, be, and the same is hereby, appropriated out of the patent fund, to be expended by the Commissioner of Patents in the collection of agricultural statistics, and for other agricultural purposes; for which the said Commissioner shall account in his next annual report.

Provisions 16th sec., act July 4, 1836, ch. 357, extended.

SEC. 10. *And be it further enacted*, That the provisions of the 16th section of the before recited act shall extend to all cases where patents are refused for any reason whatever, either by the Commissioner of Patents or by the Chief Justice of the District of Columbia, upon appeals from the decision of said Commissioner, as well as where the same shall have been refused on account of, or by reason of, interference with a previously existing patent; and in all cases where there is no opposing party, a copy of the bill shall be served upon the Commissioner of Patents, when the whole of the expenses of the proceedings shall be paid by the applicant, whether the final decision shall be in his favor or otherwise.

Appeals.

SEC. 11. *And be it further enacted,* That in cases where an appeal is now allowed by law from the decision of the Commissioner of Patents to a Board of Examiners provided for in the seventh section of the act to which this is additional, the party, instead thereof, shall have a right to appeal to the Chief Justice of the District Court of the United States for the District of Columbia, by giving notice thereof to the Commissioner, and filing in the Patent Office, within such time as the Commissioner shall appoint, his reasons of appeal, specifically set forth in writing, and also paying into the Patent Office, to the credit of the patent fund, the sum of twenty-five dollars. And it shall be the duty of said Chief Justice, on petition, to hear and determine all such appeals, and to revise such decisions in a summary way, on the evidence produced before the Commissioner, at such early and convenient time as he may appoint, first notifying the Commissioner of the time and place of hearing, whose duty it shall be to give notice thereof to all parties who appear to be interested therein, in such manner as said judge shall prescribe. The Commissioner shall also lay before the said judge all the original papers and evidence in the case, together with the grounds of his decision, fully set forth in writing, touching all the points involved by the reasons of appeal, to which the revision shall be confined. And at the request of any party interested, or at the desire of the judge, the Commissioner and the examiners in the Patent Office may be examined under oath, in explanation of the principles of the machine, or other thing for which a patent, in such case, is prayed for. And it shall be the duty of the said

judge, after a hearing of any such case, to return all the papers to the Commissioner, with a certificate of his proceedings and decision, which shall be entered of record in the Patent Office; and such decision, so certified, shall govern the further proceedings of the Commissioner in such case: *Provided, however,* That no opinion or decision of the judge in any such case shall preclude any person interested in favor or against the validity of any patent which has been, or may hereafter be, granted, from the right to contest the same in any judicial court, in any action in which its validity may come in question.

Commis-
sioner may
make regu-
lations re-
specting con-
tested cases.

SEC. 12. *And be it further enacted,* That the Commissioner of Patents shall have power to make all such regulations, in respect to the taking of evidence to be used in contested cases before him, as may be just and reasonable. And so much of the act to which this is additional as provides for a Board of Examiners is hereby repealed.

Compensa-
tion of Chief
Justice.

SEC. 13. *And be it further enacted,* That there be paid annually, out of the patent fund, to the said Chief Justice, in consideration of the duties herein imposed, the sum of one hundred dollars.

Approved March 3, 1839.

CHAP. CCLXIII. — AN ACT in addition to an act to promote the progress of the useful arts, and to repeal all acts and parts of acts heretofore made for that purpose.

Act of July
4, 1836, ch.
357.

Act of Mar.
3, 1837, ch.
45.

Act of Mar.
3, 1839, ch.
87.

Treasurer
authorized to

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That the Treasurer of the United States be, and he hereby is, authorized to pay back, out of the patent fund, any sum or sums of money, to any person who shall have

paid the same into the Treasury, or to any receiver or depository to the credit of the Treasurer, as for fees accruing at the Patent Office through mistake, and which are not provided to be paid by existing laws, certificate thereof being made to said Treasurer by the Commissioner of Patents.

pay back, out of the patent fund, certain money paid as fees.

SEC. 2. *And be it further enacted*, That the third section of the act of March, eighteen hundred and thirty-seven, which authorizes the renewing of patents lost prior to the fifteenth of December, eighteen hundred and thirty-six, is extended to patents granted prior to said fifteenth day of December, though they may have been lost subsequently: *Provided, however*, The same shall not have been recorded anew under the provisions of said act.

Sec. 3, act of March 3, 1837, ch. 43, extended to patents granted prior to 15th Dec., 1836, though lost subsequently.

Proviso.

SEC. 3. *And be it further enacted*, That any citizen or citizens, or alien or aliens, having resided one year in the United States, and taken the oath of his or their intention to become a citizen or citizens, who by his, her, or their own industry, genius, efforts, and expense, may have invented or produced any new and original design for a manufacture, whether of metal or other material or materials, or any new and original design for the printing of woollen, silk, cotton, or other fabrics, or any new and original design for a bust, statue, or bas relief or composition in alto or basso relievo, or any new and original impression or ornament, or to be placed on any article of manufacture, the same being formed in marble or other material, or any new and useful pattern, or print, or picture, to be either worked into or worked on, or printed or painted, or cast, or otherwise fixed on, any article of manufacture, or any new and original shape or configuration of any

Citizens, &c., may obtain a patent; how.

article of manufacture not known or used by others before his, her, or their invention or production thereof, and prior to the time of his, her, or their application for a patent therefor, and who shall desire to obtain an exclusive property or right therein to make, use, and sell and vend the same, or copies of the same, to others, by them to be made, used and sold, may make application, in writing, to the Commissioner of Patents, expressing such desire, and the Commissioner, on due proceeding had, may grant a patent therefor, as in the case now of application for a patent:

Proviso. *Provided*, That the fee, in such cases, which by the now existing laws would be required of the particular applicant, shall be one half the sum, and that the duration of said patent shall be seven years, and that all the regulations and provisions which now apply to the obtaining or protection of patents, not inconsistent with the provisions of this act, shall apply to applications under this section.

Oath may
be taken be-
fore U. S.
ministers,
&c.

SEC. 4. *And be it further enacted*, That the oath required for applicants for patents may be taken, when the applicant is not, for the time being, residing in the United States, before any minister plenipotentiary, charge d'affaires, consul, or commercial agent holding commission under the government of the United States, or before any notary public of the foreign country in which such applicant may be.

Penalty for
infringing
the rights of
a patentee,
&c., by mark-
ing.

SEC. 5. *And be it further enacted*, That if any person or persons shall paint or print, or mould, cast, carve, or engrave, or stamp, upon anything made, used, or sold by him, for the sole making or selling which he hath not, or shall not have, obtained letters-patent, the name, or any imitation of the name, of any other person who hath or

shall have obtained letters-patent for the sole making and vending of such thing, without consent of such patentee, or his assigns or legal representatives; or if any person, upon any such thing not having been purchased from the patentee, or some person who purchased it from or under such patentee, or not having the license or consent of such patentee, or his assigns or legal representatives, shall write, paint, print, mould, cast, carve, engrave, stamp, or otherwise make or affix the word "patent," or the words "letters-patent," or the word "patentee," or any word or words of like kind, meaning, or import, with the view or intent of imitating or counterfeiting the stamp, mark, or other device, of the patentee, or shall affix the same, or any word, stamp, or device of like import, on any unpatented article, for the purpose of deceiving the public, he, she, or they, so offending, shall be liable for such offence to a penalty of not less than one hundred dollars, with costs, to be recovered by action in any of the circuit courts of the United States, or in any of the district courts of the United States having the powers and jurisdiction of a circuit court; one half of which penalty, as recovered, shall be paid to the patent fund, and the other half to any person or persons who shall sue for the same.

How recoverable, &c.

SEC. 6. *And be it further enacted,* That all patentees and assignees of patents hereafter granted are hereby required to stamp, engrave, or cause to be stamped or engraved, on each article vended or offered for sale, the date of the patent; and if any person or persons, patentees or assignees, shall neglect to do so, he, she or they, shall be liable to the same penalty, to be recovered and

Patentees, &c., required to mark articles offered for sale.

Penalty for neglect.

disposed of in the manner specified in the foregoing fifth section of this act.

Approved August 29, 1842.

CHAP. XLVII.—AN ACT to provide additional examiners in the Patent Office, and for other purposes.

May 23, 1843.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be appointed, in the manner provided in the second section of the act entitled "An Act to promote the progress of useful arts, and to repeal all acts and parts of acts heretofore made for that purpose," approved July fourth, eighteen hundred and thirty-six, two principal examiners, and two assistant examiners, in addition to the number of examiners now employed in the Patent Office; and that hereafter each of the principal examiners employed in the Patent Office shall receive an annual salary of twenty-five hundred dollars, and each of the assistant examiners an annual salary of fifteen hundred dollars: *Provided*, that the power to extend patents, now vested in the board composed of the Secretary of State, Commissioner of Patents, and Solicitor of the Treasury, by the eighteenth section of the act approved July fourth, eighteen hundred and thirty-six, respecting the Patent Office, shall hereafter be vested solely in the Commissioner of Patents; and when an application is made to him for the extension of a patent according to said eighteenth section, and sixty days' notice given thereof, he shall refer the case to the principal examiner having charge of the class of inventions to which said case belongs, who shall make a full report to said Commissioner of the said case, and particularly whether the in-

1836, ch. 357.

Additional
examiners in
the Patent
Office.

Salaries.

Extension
of patents.

vention or improvement secured in the patent was new and patentable when patented ; and thereupon the said Commissioner shall grant or refuse the extension of said patent, upon the same principles and rules that have governed said board ; but no patent shall be extended for a longer term than seven years.

SEC. 2. *And be it further enacted*, That hereafter the Commissioner of Patents shall require a fee of one dollar for recording any assignment, grant or conveyance, of the whole or any part of the interest in letters-patent, or power of attorney, or license to make or use the things patented, when such instrument shall not exceed three hundred words; the sum of two dollars when it shall exceed three hundred and shall not exceed one thousand words; and the sum of three dollars when it shall exceed one thousand words; which fees shall in all cases be paid in advance.

Fees for recording conveyances of patents.

SEC. 3. *And be it further enacted*, That there shall be appointed in manner aforesaid two clerks, to be employed in copying and recording, and in other services in the Patent Office, who shall be paid a salary of one thousand two hundred dollars per annum.

Two copying and recording clerks authorized.

SEC. 4. *And be it further enacted*, That the Commissioner of Patents is hereby authorized to send by mail, free of postage, the annual reports of the Patent Office, in the same manner in which he is empowered to send letters and packages relating to the business of the Patent Office.

Franking privilege of Commissioner of Patents.

Approved May 27, 1848.

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